FINAL REPORT

# VLT GAMBLING IN ALBERTA:
## A PRELIMINARY ANALYSIS

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# CHAPTER ONE
# CONTEXT FOR THE STUDY

## 1.1 Introduction

A Criminal Code of Canada amendment in 1985 dramatically altered the Canadian legal gambling landscape in two ways; it finalized the transfer of authority over legal gambling from federal to provincial jurisdictions and legalized computer video and slot machine style gambling (Campbell & Smith, 2003). Eventually, all ten provinces embraced some form of electronic gambling, be it through video lottery terminals (VLTs), slot machines, electronic bingo, satellite bingo, electronic keno or some combination of these (Canada West Foundation, 2001). It is noteworthy that the Criminal Code amendment to permit these activities was made without public input and has been an ongoing source of public controversy ever since. Since gaining statutory approval, electronic machine gambling has become a significant gambling format in Canada in terms of revenue generation (Statistics Canada, 2003) and perceived negative social and community impacts (Nova Scotia Alcohol and Gaming Authority Annual Gaming Report, Vol. II, 1998-1999). Canada-wide, VLTs account for 23% of net gambling revenues (Statistics Canada, 2003). By comparison, Alberta's VLTs generate more than half of the province's gambling profits.

This study deals with a specific form of electronic gambling: video lottery terminals (VLTs). VLTs have properties that distinguish them from other legal gambling formats, including other electronic gambling devices. First, instead of coin winnings dropping into a hopper, as is the case with slot machines, they are displayed as credits on the computer screen and can only be redeemed by presenting a receipt to a cashier elsewhere on the premises. Second, VLTs are faster paced than other forms of gambling, thus allowing for more wagers in a gambling session. Third, VLTs are located in bars and lounges, making them more accessible than most legal gambling formats. Fourth, the design of VLTs (bright colors, flashing lights and pleasant sounds) facilitates some players reaching a dissociative state; that is, becoming psychologically detached from reality and engrossed in a fantasy world (Jacobs, 1986; McGurrin, 1991). Lastly, VLT play is easy to learn, requires no special talent, and, because VLTs are governed by a randomly programmed microchip, there is no optimal playing strategy. These commingling factors are thought to produce an addictive potency greater than that of other gambling formats (Smith & Wynne, 2002) and, as a result, pose formidable policy challenges for the jurisdictions that sanction them.

The fiscal benefits of VLTs were so compelling that eight of Canada's ten provinces installed the devices. The two provinces so far opting out (Ontario and British Columbia), were poised to implement VLTs, however, before they could, VLTs had become a flashpoint of public concern in other jurisdictions. The decision to forego VLT gambling in Ontario and British Columbia appeared to be made for the pragmatic reason of avoiding an anticipated negative public response.

By way of comparison with the United States, it is interesting to note that only five of the fifty states (Montana, Oregon, Nevada, South Dakota, and certain Louisiana parishes) offer readily available VLT gambling in the same fashion that exists in eight Canadian provinces. Twenty-six states permit slots and/or VLTs in dedicated gambling venues such as casinos, race tracks (horse and dog), bingo halls, and jai alai frontons, while nineteen states currently forbid electronic gambling machines. The American scene is in continual flux as gambling issues are regularly on state election ballots; however, proposals to introduce electronic machine gambling fail more often than not (Rose, 2003).

Provinces that did initiate VLT gambling saw rapid and enormous increases in their gambling profits. In the year 2002, Canada's 38,652 VLTs produced government revenues of $2.6 billion, and while VLT proceeds vary from province to province, it is estimated that for every $100 wagered, $30 goes to government coffers (KPMG, 2003; Canada West Foundation, 2001). A recent Statistics Canada report showed that 25% of Canadian VLT players were either at-risk or problem gamblers; this is ten percent higher than the next most potent formats (bingo and horse racing), thus, seemingly "confirming the much-reported notion that VLTs are the 'crack cocaine' of gambling" (Marshall & Wynne, 2003, p. 9). The spectacular revenue production of VLTs, in juxtaposition to their perceived addictive nature, has created a climate of ambiguity in Canada, as evidenced by inconsistent policy, limited research and evaluation, and minimal preparation for adverse consequences.

## 1.2 Rationale for the Study

Because VLT gambling is a relatively recent phenomenon, its impact on local communities, provinces, and the nation as a whole is not well understood. Lately, gambling researchers have speculated that the impressive revenues accruing from VLTs may not outweigh the social and economic turmoil created by those citizens who become addicted to the activity. The dilemma posed for a government is that VLTs are a highly lucrative gambling format, but also, conceivably, the most hazardous gambling format. Adding to the ambiguity is the fact that until recently, VLT gambling was outlawed; now it is legitimated in government policy. As was the case with other formerly stigmatized activities that have changed status (Skolnick & Dombrink, 1978), VLT gambling met resistance as it shifted from prohibition to provincial approval, because public support for VLTs was not broadly based. In an effort to counter the perceived adverse effects of VLT gambling, Canadian provincial governments have introduced some or all of the following measures:

- Funding problem gambling prevention, treatment and research programs.
- Equipping VLTs with "responsible gaming features" such as clocks, wagering totals, hourly interruptions in play, forced cash-outs, slowing the pace of play etc.
- Locating VLTs only in age restricted licensed establishments.
- Capping and/or reducing the number of VLTs allowed in the province and/or by establishment.

- VLT retailer Responsible Gambling Programs.
- Allowing communities to vote on whether or not they want VLTs in their midst.

Are these corrective actions enough? Given the turbulent history of VLTs, the controversy still associated with the machines, and the dearth of empirical research on how VLT gambling impacts local communities, provinces, and the nation as a whole, it is to governments' and citizens' advantage to better understand the social and economic impacts of the machines; consequently, the need to explore the nature and scope of VLT gambling in Alberta. It is anticipated that the results of this study will inform policy makers concerned about VLT gambling impacts, be of practical help to problem gambling treatment and prevention agencies, and generally raise public awareness about a cultural phenomenon of some significance.

### 1.3 Purpose of the Study

The purpose of this project is to investigate VLT gambling in the Province of Alberta to determine (1) the social, economic, and political forces that precipitated its evolutionary growth, (2) the pattern of VLT placements and customer expenditures, and (3) the demographic and behavioral profile of VLT playing non-problem and problem gamblers.

This report contains eight chapters: In the remainder of this chapter we outline the evolution of VLT gambling in Alberta. In the second chapter, we review the academic literature on VLT gambling; in particular, the machine features that are thought to contribute to problem gambling, the distribution patterns of the machines and their impact on individuals and communities. The study design, along with the methods used to gather and analyze the data, is presented in the third chapter. Set forth in chapters four through seven are the results of the investigation under the following headings: VLT gambling in Alberta, problem gambling amongst VLT players, VLT gambling venues, VLT gambling expenditures, and VLT gambling in Alberta and community profiles. Finally, in chapter eight, we offer our conclusions and speculate on the implications that these findings may have for governments, addiction treatment specialists, gambling studies researchers, and citizens at large.

### 1.4 The Evolution of VLT Gambling in Alberta

It took five years following the 1985 Criminal Code amendment for Canadian provinces to capitalize on the legalization of electronic gambling machines, with New Brunswick being first to enter the market in 1990 (Canada West Foundation, 2001). Alberta began preliminary trials with VLTs in 1991 by allowing the machines during the ten-day Calgary Stampede and Edmonton Klondike Days summer fairs, and subsequently, in thirty age-controlled licensed beverage rooms throughout Alberta. A threefold rationale underlay the province's experimentation with VLTs: (1) to test a new gaming format in licensed premises (bars and lounges), (2) to generate revenue for the

Alberta Lottery fund, and (3) to prevent illegal gambling machines from gaining a foothold in the province (AGLC Gaming Licensing Policy Review, Vol. 1, 2001).

Gaming Minister, at the time, the Honorable Ken Kowalski, deemed the pilot testing a success and officially launched Alberta's VLT program on March 12, 1992 with the ultimate goal of installing 8,600 terminals in licensed premises over a three-year period. Following this announcement, the government began acquiring VLTs and configuring a central monitoring system. Table 1 shows the developmental stages of Alberta's VLT program over its first decade of operation.

**TABLE 1**
**Alberta VLT Installations 1992-2001**

| DATE | # OF TERMINALS | # OF LOCATIONS | COMMENTS |
|---|---|---|---|
| Mar. 12, 1992 | | | Official VLT program launch |
| Mar. 31, 1992 | 435 | 84 | |
| Aug. 30, 1992 | | | Central computer system established |
| Mar. 31, 1993 | 1,767 | 376 | |
| Mar. 31, 1994 | 4,438 | 864 | |
| Mar. 31, 1995 | 5,975 | 1,080 | |
| Mar. 31, 1996 | 5,586 | 1,098 | On Dec. 8, 1995 VLTs were capped at a maximum of 6,000 |
| Mar. 31, 1997 | 5,866 | 1,221 | |
| Mar. 31, 1998 | 5,852 | 1,225 | |
| Mar. 31, 1999 | 5,943 | 1,223 | |
| Mar. 31, 2000 | 5,959 | 1,238 | |
| Mar. 31, 2001 | 5,965 | 1,266 | |
| Mar. 31, 2003 | 5,995 | 1,179 | |

Information for this table is derived from the Alberta Gaming and Liquor Commission *Gaming Licensing Policy Review*, Vol. 1 (2001, p 14-5) and the Alberta Gaming Commission's 2002-2003 *Annual Report*.

In the past decade, four provincial government gaming reviews (three public and one internal) have been completed: the Lotteries Review Committee (1995); Alberta Lotteries and Gaming Summit (1998); an internal report on illegal gambling and criminal activity prepared by MLA Judy Gordon; and the AGLC's Gaming Licensing Policy Review (2001). Each of the public reviews constituted a multifaceted assessment of legal gambling in the province at the time, but the first two reviews, in particular, were prompted by the unanticipated impacts of VLT gambling. The background, terms, and recommendations vis-à-vis VLT gambling for each of these reviews is outlined below.

### 1.4.1 Lotteries Review Committee

The Lotteries Review Committee (LRC), established by Premier Ralph Klein in 1994, was tasked with consulting Albertans about future directions for lotteries and gaming. The LRC was comprised of ten members (5 Conservative MLAs, 3 elected municipal officials appointed by the Alberta Association of Municipal Districts and Counties and 2 government-appointed public members).

In the introduction to its report (New Directions for Lotteries and Gaming, 1995), the LRC noted that provincial lottery and gaming revenues had grown by a multiplier of 56 (from $8.8 million in 1983/84 to $503 million in 1994/95) and that this dramatic increase was "due to a single factor: video lottery terminals" (p 2). Rapidly expanding lottery revenues caused the government to rethink its gambling policies, and the first step in this process, was commissioning the LRC to take the citizenries' pulse on legal gambling issues. The LRC identified seven "key issues," three of which pertained to VLTs, namely: (1) What should lotteries funding be used for? (2) What is the impact of VLTs on community organizations? (3) How to address problem gambling? The process utilized by the LRC was as follows:

- To stimulate debate, a discussion paper entitled *New Directions Alberta Lotteries* (1994) was created, which outlined the seven key gambling issues and included a series of questions related to each concern.
- Interested parties (individual Albertans, groups, voluntary organizations, municipalities, etc.) were invited to respond to the discussion paper questions through presentations at open forums or via written submissions, letters and petitions.
- The LRC held 22 public meetings in 14 locations across the provinces, which were attended by 2,200 Albertans. The LRC heard 462 oral presentations and received over 18,500 written submissions.
- The process was open to all Albertans; however, the majority of input was received from interest groups and organizations already benefiting from lottery funding.

In its final report, the LRC noted, "by far, issues surrounding VLTs generated the most comment and reaction" (New Directions For Lotteries and Gaming, 1995). LRC recommendations specific to VLTs included:

- Capping the number of VLTs in the province at 6,000 and capping the number of VLTs per venue at 7.
- A portion of VLT revenues should flow back to community Lottery Boards who would disburse the funds to local priorities and volunteer organizations.
- Communities should be allowed to decide by plebiscite whether or not they want VLTs.
- The current incentive/bonus system for retailers based on volume of VLT revenues generated should be abolished.
- Changes should be made to the VLT computer chip to slow down the speed of games.
- VLT venue staff and management should be prohibited from playing on-site VLTs when on duty.

The provincial government adopted all but one of these recommendations (slowing the speed of play) and these remain in effect, except for Community Lottery Boards, which were instituted for several years then disbanded in the 2001-02 fiscal year.

### 1.4.2 Alberta Lotteries and Gaming Summit

In February 1998, Premier Ralph Klein announced a "Gaming Summit" to be held in Medicine Hat on April 23-25. The Gaming Summit rationale was that it followed the Lottery Review Committee recommendation that, "the impact of the changes (in gaming) should be monitored on an ongoing basis and that the recommendations of the report should be reviewed in three years to assess whether further changes are needed" (New Directions for Lotteries and Gaming, 1995, p 33). Skeptics suggested that the real impetus for the Gaming Summit was to relieve intense pressure on the government stemming from numerous petitions circulating throughout the province calling for the VLT question to be placed on civic election ballots (Cunningham, 1998a).

The Gaming Summit utilized a public input process that was structured differently from the Lotteries Review Committee, 119 delegates were invited to the Gaming Summit; 54 were randomly selected adult Albertans who reflected the demographic breakdown of the province and 65 were representatives of various interest groups from 11 pre-selected societal groupings (e.g. education, health, law enforcement, seniors). Summit delegates were randomly assigned to one of five work groups, each with a moderator and two facilitators. The groups were tasked with debating two questions: (1) What are the benefits and implications of lotteries and gaming on individuals and communities in Alberta? And (2), how should the government of Alberta acknowledge and accommodate these benefits and implications when developing its social and economic strategies, now, and in the future (Alberta Lotteries and Gaming Summit 1998 Report)? Each group presented its deliberations to a meeting of the whole; group reports were compared, contrasted and later analyzed and distilled by the Gaming Summit staff to form core recommendations.

The Gaming Summit produced eight recommendations, all of which were accepted by the provincial government. None of the recommendations were VLT-specific, but reading between the lines, an attempt was made to address concerns associated with VLT gambling. For example, recommendations calling for (1) dedicating more resources to gaming research, (2) gaming and lottery profits not being directed to the province's General Revenue Fund, but to support charitable or non-profit community initiatives, and (3) enhancing gambling addiction prevention and treatment programs (Alberta Lotteries and Gaming Summit 1998 Report, 1998, p 2) were, at least in part, prompted by public misgivings over VLT gambling policies. The Gaming Summit was useful in terms of re-examining and upgrading the Lottery Review Committee's work; however, its reluctance to directly address lingering VLT issues fuelled citizen petition campaigns (Stockland, 1998).

### 1.4.3 MLA Judy Gordon Internal Report

MLA Judy Gordon was tasked by Premier Klein with investigating illegal gambling and criminal activity related to legal gambling, reviewing the principles for the Alberta Lottery Fund distribution, and reporting on the Ontario gaming model and its relevance to Alberta. The report, which was completed in December 1998, contained an important and controversial recommendation; based on Ontario government practice, Gordon proposed that the regulatory division of the Alberta Gaming and Liquor Commission (AGLC) be separated from its policy and operating arms. The rationale was that conflicts of interest will invariably arise, when the AGLC is, in effect, regulating itself. Bill 208 was sponsored by the opposition, but based on the Gordon report recommendations. It called for amendments to the Gaming and Liquor Act and the implementation of a Gaming Secretariat to advise the government on gambling policy. Bill 208 was resoundingly defeated by a vote of 7 for, 43 opposed (Alberta Hansard, April 21, 1999).

### 1.4.4 Gaming Licensing Policy Review

In December 1999, the Honorable Murray Smith, Minister of Gaming, announced a gaming policy review, "to address issues related to the growth of gaming in the province" (Alberta Gaming and Liquor Commission, 2001, Vol. 1, p 1-1). In conjunction with the review process, a moratorium was placed on new casinos, casino expansions or re-locations, new games, and new gaming environments. The review, completed in July 2001, constituted the province's first systematic and coordinated assessment of past and future gaming trends and provided a set of guiding principles for gaming in Alberta for the next five years. A four-stage process was used to complete the review: (1) identification of key gaming issues by senior AGLC administrators; (2) research, in the form of marketing surveys, ascertaining public gambling attitudes, perceptions and behaviors, a literature search on highlighted gambling issues, and consultations with key stakeholder groups; (3) analysis of the research findings; and (4) development of recommendations and production of a final report. Undergirding the contents of the review was the precept "achieving a balance," the idea that Alberta gaming policy should reflect a harmonization of revenue generation and social responsibility objectives.

The Gaming Licensing Policy Review contains a comprehensive section on Alberta's VLT program that includes a discussion of topics such as licensing terms and conditions, revenue figures, payout percentages, and legal challenges to VLTs. The only indication of a downside to VLTs comes under the section heading "Landscape of Other Provinces"; here, commentary from various Canadian jurisdictions regarding the effects of VLT gambling is provided. This section comments on, (1) the ability of VLTs to generate significant revenues, (2) the ready accessibility of VLTs "poses greater risks for problem gambling than other gaming activities" (Alberta Gaming and Liquor Commission, 2001, p 14-24) and (3) VLTs have contributed to a decline in interest in traditional gambling activities such as bingo, horse racing, and pull-tabs. Thirteen VLT-specific recommendations were presented in the Gaming Licensing Policy Review, most of which involved tweaking existing terms and conditions related to VLT placement and distribution, performance monitoring, and tightened financial controls.

## 1.5 VLT Gambling in Alberta: Framing the Political Debate

From its inception in 1991, the Alberta VLT program has been a politically sensitive issue. A search of Alberta Hansard (the verbatim account of legislative proceedings) from 1991 to the present, revealed numerous concerns about VLT gambling that were vigorously debated by members of the Alberta Legislative Assembly. These included:

- Whether or not VLTs should be allowed in the province.
- Whether a public consultation process should precede the implementation of VLTs.
- If allowed, where VLTs should be located.
- Whether VLTs should be coin-in coin-out machines, or credit display units.
- How VLT revenues should be distributed.
- Whether municipalities can choose to have VLTs removed.
- Whether, and to what extent, VLTs are associated with problem gambling.
- The structural characteristics of VLTs and their perceived addictive qualities.

The legislative commentary on these VLT issues is summarized below.

### 1.5.1 What is the Rationale for Government-Owned VLTs?

Twice since their implementation in 1992, opposition members introduced Bills calling for the elimination of VLTs in the province (Bill 232, Video Lottery Schemes Elimination Act; and Bill 202, Lotteries Amendment Act; Alberta Hansard Oct. 30, 1995 and Feb. 14, 1996). The debate over these two Bills elucidated the philosophical positions of both government and opposition MLA's pursuant to the role of VLT gambling in the province.

The opposing parties' anti-VLT thrust included the following major points: (1) VLT gambling promotes an unhealthy lifestyle, (2) VLTs are highly addictive and too widely available, (3) VLTs erode community values, (4) VLTs reduce revenues received by charitable groups from casinos and bingos and damage the horse racing industry, and (5) VLT revenues contribute to the morally unacceptable practice of using money gained from citizens' addictions to pay down government deficits.

Governing party arguments against the Bills were two-pronged; first a rebuttal by Gaming Minister, the Honorable Steve West, who spoke against the Bills on the grounds that:

- They were hypocritical, "Why eliminate VLTs and not other forms of gambling?"

- The government can't protect its citizens "in a glass bubble" from all the ills in the world.
- The Criminal Code of Canada permits provinces to offer VLTs; if we eliminate them they will go underground.
- The money garnered from VLTs will go elsewhere; we will see disposable cash leaving the province.
- VLT revenues go toward community enhancements and worthy causes and help the government cope with diminished federal transfer payments.
- This is a freedom of choice issue, no one is forcing anyone to play VLTs, and people have to be responsible for their own decisions.

Lottery Review Committee Chair, MLA Judy Gordon also countered by explaining how the recently released *Lottery Review Committee Report* (LRC) dealt with some of the opposition members' misgivings; points made include a recommendation to cap the number of VLTs in the province, the possibility of relocating VLTs to casinos and/or slowing them down, and the prospect of illegal machines flooding the market if legal VLTs were eliminated.

### 1.5.2 What was the Public Consultation Process for Implementing VLTs?

Opposition members expressed concern that VLTs had been sprung on Albertans overnight and that citizens had no input into whether or not they wanted the machines at all, let alone locating them in bars and lounges. As noted earlier, VLTs were pilot-tested at the Calgary and Edmonton summer fairs and in thirty licensed premises around the province. According to Gaming Minister, the Honorable, Ken Kowalski, "the VLT test program will look at a number of questions including public reaction, social impact, operational issues, consumer preference, and the potential for profit" (Alberta Hansard, June 5, 1991). When Kowalski was asked by an opposition member "if there would be public consultation, including public hearings before proceeding with VLTs?" Kowalski said he "would ask for public reaction" (Alberta Hansard, May 23, 1991). As a result of this preview, a small portion of the public did experience the machines directly, and, based on this limited trial, which showed the machines to be popular, as well as expedient and ample revenue generators, VLTs became permanent fixtures in bars and lounges throughout the province. Since no report on the VLT pilot testing was released to the public, opposition MLAs expressed concern as to whether serious consideration had been given to potential social and economic impacts of VLTs.

In reacting to the government's plan to increase the number of VLTs in the province from 4,000 to 8,500, opposition party concerns over the lack of public consultation in VLT policy development was raised again in the legislature; for example: "The government has been going like a speeding train to get us into more and more gambling without thinking about it, without consulting Albertans or professionals about the ramifications" (Alberta Hansard, Apr. 26, 1994). The Honorable Ken Kowalski's general response to the opposition's lack of consultation on VLTs rhetoric was "there has just been an election and we were voted in, so the public must support our policies; our VLT policy was announced well before the election…I have been inundated with requests from retailers to have the machines…people tell me they are glad to play VLTs in the province without having to spend their money elsewhere" (Alberta Hansard, May 3, 1994).

Several years following the implementation of VLT gambling, in 1995, growing alarm over the perceived harmful effects of VLTs stimulated the government to form the Lottery Review Committee, and in 1998, in response to plebiscites circulating in a number of Alberta municipalities calling for the removal of VLTs, the government convened a "Gaming Summit" in Medicine Hat. Both initiatives were public consultations on gaming policy issues, which ultimately produced policy recommendations adopted by the government.

### 1.5.3 Where Should VLTs Be Located?

VLTs operating in the province are purchased and owned by the Alberta Gaming and Liquor Commission (AGLC), an agent of the Alberta government. This arrangement is in accord with Criminal Code of Canada provisions, which stipulate that only a provincial authority may conduct and manage electronic gaming devices (Alberta Gaming Licensing Policy Review, 2001). VLTs are placed in bars and lounges under agreements between the AGLC and licensed retailers. For allowing VLTs on their premises, providing basic maintenance, and a coin float, retailers receive a commission of 15% of annual net revenues from the VLTs on their properties. Responding to opposition party questions in the legislature, the Honorable Ken Kowalski conceded that 15% of the net profit from VLTs was "a fairly healthy return for the retailers;" but justifiable, according to Kowalski, because since VLTs came in, liquor sales in bars have gone down (Alberta Hansard, Apr. 25, 1994). In the early years of the VLT program, incentive bonuses were provided to retailers whose machines were above the provincial average weekly net revenue. Frequently played machines could increase a retailer's profit by 4%, up to 19% of net revenues (Alberta Hansard, Sept. 10, 1993). The incentive system was later withdrawn on the basis of a Lottery Review Commission recommendation.

A contentious point in the VLT legislative debates concerned their location; three possibilities considered were (1) licensed premises such as bars and lounges; (2) dedicated gambling venues such as casinos and racetracks; and (3) a wider dispersal, which would include one or both of the above and convenience locations such as corner stores, laundromats, bowling alleys, etc. The first option was ultimately selected—licensed premises--primarily because they are age controlled locations (there was a concern about underage gamblers having access to the machines) and because of strong lobbying efforts by the Alberta hotel and tourism industry, who claimed their members were under financial duress and needed new revenue streams to insure their solvency. Gaming Minister, the Honorable, Ken Kowalski, acknowledged having discussions about VLT locations with the Alberta Hotel Association and a variety of other groups before the machines were pre-tested (Alberta Hansard, June 5, 1991). The bars and lounges alternative was an expedient solution for the government because it meant the VLT program could utilize existing facilities spread throughout the province and that only two partners (government and VLT retailers) would share in the revenues.

Regarding alternative VLT placements, convenience locations were ruled out because of compelling evidence from Nova Scotia, New Brunswick, and Prince Edward Island showing that the ready accessibility of convenience store VLTs in these jurisdictions was creating addiction and social problems. Eventually, all three of these provinces pulled VLTs from convenience locations in response to public backlash. Placing VLTs in dedicated gambling venues seemed a viable option because these are also age controlled premises, less accessible than bars and lounges, and frequented by customers who ostensibly have made a conscious decision to gamble, as opposed to bar and lounge patrons who may inadvertently encounter the machines.

Shortly after the Alberta VLT program was implemented, various Royal Canadian Legion branches appealed to their local MLAs to ascertain why VLTs were not allowed in their establishments. The answer provided by Gaming Minister, the Honorable Ken Kowalski was that Legion branches had different liquor licenses than bars and lounges, because of their restrictive membership (Alberta Hansard, Sept. 13, 1993). Legion branches were informed that if their premises were open to the general public, they could change their liquor licenses, and hence, be eligible to have VLTs. Some Legion branches made this concession and now feature VLTs in their bars.

Ironically, the decision to house VLTs exclusively in licensed bars and lounges became a sore point within the government caucus as several prominent members, in hindsight, openly questioned the wisdom of this policy. For example, the Lottery Review Committee (whose composition included five government MLAs) recommended that VLTs be removed from bars and lounges and placed in casinos. Likewise, when Gaming Minister, the Honorable Steve West, met with his Ontario counterpart, the Honorable Norm Stirling to provide advice on gambling regulation, West said that "VLTs should never have been put into bars" (Alberta Hansard, Aug. 21, 1996); whether or not because of this meeting, the Ontario government chose not to implement VLT gambling.

In retrospect, the decision to locate VLTs in bars and lounges was challenged by opposition party members on the following grounds: (1) the VLT licensed bar and hotel owners have become "kept businesses" to the extent that this revenue stream depends on their relationship with the government and their ability to influence policy and regulation (Alberta Hansard, Apr. 25, 2001). (2) VLT licensees are, in effect, limited franchises created by government who has the capacity to criminalize competitors, thus increasing industry control. (3) To protect their favored position, VLT licensees are aggressive lobbyists who persistently push for expansion in the form of regulatory relief, additional games/machines, longer hours of operation, and higher wagering limits. (4) Hotels were not originally built or purchased to become gambling centres; allowances of this nature are rarely made for other industries, so why hotels (Alberta Hansard, Feb. 29, 2000)? (5) VLT gambling has been characterized as a "shell game" because little or no capital investment by operators is required; few jobs are created and those tend to be low-skilled and low-paid positions; and the fact that few tourist dollars are spent on VLTs means there is a fundamental redistribution of dollars within a community (Welch, 1998).

Recent AGLC figures show that 72% of Alberta bars and lounges operate VLTs, the majority of which are in urban locations (63%) and these account for 66% of net sales (Gaming Licensing Policy Review, 2001).

### 1.5.4 Credit Display Versus Coin-In Coin-Out Machines

Alberta VLTs have always featured a credit display function, although a brief experiment with coin-in coin-out machines occurred in Lethbridge bars and lounges in 1994 (Alberta Hansard, Sept. 13, 1993). According to Gaming Minister, the Honorable Ken Kowalski, customers liked the coin-in coin-out machines but there were inconveniences for both players and operators, namely; jackpots had to be counted to make sure players received the correct amount, jackpots of 1,000 loonies were too heavy and cumbersome for patrons to carry, and there was a security risk involved with so many coins being on public display (Alberta Hansard, Apr. 14, 1994). For these reasons, the government continued with the credit display VLT units.

It is important to clarify the differences between VLTs and slot machines, as there is a tendency for legislators as well as the general public to view them as identical. While the two electronic gambling formats are similar, there are several discrepancies. VLTs and slot machines are both freestanding, interactive, computer-run, devices that offer various games of chance (often simulated casino games such as poker, keno and blackjack) whose outcome is determined by a preprogrammed microchip. Payouts for both VLTs and slot machines occur on a variable ratio schedule, which means that each play is an independent event and has no relationship to past or future plays.

The main differences between these two electronic gambling formats involve how wins are recorded and paid out and machine locations. For VLTs, wins and losses appear as credits on the terminal screen; as play continues, credits fluctuate up and down until either reducing to zero or the player cashes out. To redeem credits, players press a button on the machine that produces a receipt to be turned in to a cashier. In contrast, slot machines are "coin-in coin-out" units, meaning that coin winnings drop into the machine's hopper and become immediately accessible to the player. In terms of location, VLTs in Alberta are confined to licensed/age-restricted establishments such as bars, taverns and lounges. In contrast, slot machines are found only in licensed gambling venues, either casinos or racetracks.

Despite the many similarities between VLTs and slot machines, the main differences noted above—credits and location—have led researchers to view VLTs as being more hazardous than slot machines (Campbell, 1998; Bridwell & Quinn, 2002; Doughney, 2002a). This perception is based on the observation that when credits are substituted for cash, players can lose sight of the fact that they are playing for real dollars; also, there is a tendency for VLT gamblers to play out their credits rather than redeem them for cash. Slot machine players can access money directly when a jackpot is won and are, therefore, more likely to retain some of their winnings. Moreover, with slot machines only in dedicated gambling venues, players have presumably made a decision to gamble by going to the venue in the first place, as opposed to VLT players, who may enter a bar intending to have lunch or a drink, encounter a VLT and begin gambling on a whim.

Other variations between VLTs and slot machines as operated in Alberta are as follows (Gaming Licensing Policy Review, Vol. 1, p 14-12):

- VLTs were introduced to the province in 1992, slot machines in 1996.
- Slot machines offer a wider variety of games and themes than do VLTs because the slot machines are newer. This will change in the near future as the original VLTs are replaced with machines featuring updated technology.
- Slot wagers are in denominations of 5 cents, 25 cents or $1 and wagers can range from a minimum of 5 cents to a maximum of $5, depending on the number of games played and lines bet. VLT wagers range from a low of 25 cents to a high of $2.50.
- The maximum prize that can be won on a VLT is $1,000, whereas, because certain slot machines throughout the province are electronically linked, they yield "progressive jackpots" which have run as high as $713,000 (Alberta Gaming and Liquor Commission, Annual Report, 2002-2003).
- The distribution of net revenues is slightly different for VLTs and slot machines; that is, 15% of net VLT revenues are paid out as retailer commissions and 85% goes to the Alberta Lottery Fund. Slot machine net revenues are divided as follows: 15% to the charities or First Nation bands who host casino events, 15% to the casino operator, and the remaining 70% to the Alberta Lottery Fund. In the case of racetrack slot machines, profits are split evenly between the racetrack operator (1/3), Alberta Racing Corporation (1/3), and the Alberta Lottery Fund (1/3).

Recently the Alberta government decided not to differentiate between VLTs and slot machines in its official nomenclature; the new name for both is "gaming terminals" (Alberta Hansard, April 9, 2002).

### 1.5.5 VLT Revenue Distribution

Before VLTs became ensconced in Alberta bars and lounges in 1992, the two major gambling revenue streams (lottery-based and charity-based) were nearly equal on an annual basis. Lottery proceeds went into the provincial government's Alberta Lottery Fund (established in 1989), while charity proceeds were earned by eligible groups through their participation in raffle, sports pool, and pull-tab ticket sales and by hosting bingos and two-day casinos. With the advent of VLTs (the proceeds of which go to the Lottery Fund), lottery profits rapidly outstripped charity gaming revenues. In the period 1989 to 1997, charity gaming revenues increased by 40% in contrast to Alberta Lottery Fund gains of 500% (KPMG, 1998). Table 2 compares Alberta lottery and charity gaming revenues from 1993-2003.

Table 2 shows that charitable gaming revenues were relatively stable in the early 1990s but escalated after the 1996 introduction of slot machines to Alberta casinos and selected race tracks. Lottery revenues have risen dramatically since 1993 corresponding with the introduction of VLT gambling in 1992. Consequently, the surge in Alberta's gambling revenues over the past decade is attributed, almost entirely, to the installation of two major electronic gambling formats; VLTs and slot machines.

**TABLE 2**
**Alberta Lottery and Charity Gaming Revenues 1993-2003**

| | Charity Gaming Revenues ($millions) | Lottery Revenues ($millions) |
|---|---|---|
| 1993-94* | 106 | 393 |
| 1994-95 | 100 | 552 |
| 1995-96 | 96 | 583 |
| 1996-97 | 109 | 624 |
| 1997-98 | 130 | 705 |
| 1998-99 | 149 | 770 |
| 1999-00 | 165 | 856 |
| 2000-01 | 183 | 988 |
| 2001-02 | 200 | 1000 |
| 2002-03 | 206 | 1001 |

*Sources for these data include Alberta Gaming and Charitable Gaming in Alberta Annual Reports and Alberta Gaming and Liquor Commission *Gaming Licensing Policy Review Vol. 2* (2001) and the Alberta Gaming Commission's 2002-2003 *Annual Report.*

Eadington (2002), in an on-line interview, attributes the success of electronic gambling machines vis-à-vis table games to (1) the younger generation's familiarity with television and computers, which are somewhat akin to machine gambling in that they can be enjoyed without engaging in social interaction and (2) "the intimidation factor;" that is, playing gambling machines as opposed to table games there is no fear of being chastised by dealers or other players for making mistakes, playing the machines, there is no one else to bother you.

Alberta Lottery fund distribution was a primary discussion topic both for the Lottery Review Committee and the 1998 Gaming Summit. The issue surfaced because of the rapid growth of the Alberta Lottery Fund. Lottery revenues, spurred by VLT play, were far surpassing original estimates. Initially, lottery proceeds were earmarked for general betterments in priority areas such as arts and culture, health and wellness, recreation, education, community facilities, tourism, reducing the provincial debt, and environmental improvements that would enrich Albertans' quality of life. As lottery revenue accumulated, priority areas were provided for with an abundance of capital left over. These windfall lottery dollars allowed the government to transfer the excess monies into general revenue. This development prompted the Lottery Review Committee to reconsider Alberta Lottery Fund disbursements with the goal of streamlining allocations.

Lottery Review Committee deliberations produced the following principles regarding the use of lottery revenues: (1) Lottery funding should not be used to fund essential, ongoing government programs. (2) The process for allocating lottery funds and the decisions made should be open and visible. (3) Lottery funds should be reinvested in the community to support volunteer organizations and improve the community's quality of life. (4) There should be a balance between the need for revenues to support community and volunteer initiatives and any further expansion of gaming in Alberta. Based on these principles, the Lottery Review Committee recommended the following new system for allocating lottery funds.

- That there be five Alberta Lottery Fund allocation components, with each component receiving a fixed percentage of the total lottery revenues based on a funding formula. The five components were (1) provincial debt repayment (55%); (2) the establishment and ongoing operation of a Lotteries Foundation to recommend overall policy direction and provide administrative support and expert advice to communities and provincial organizations (10%); (3) the creation of local lottery boards who would receive per capita grants to set priorities and make decisions on lottery funding allocations in their communities (20%); (4) a provincial component which would be applied to initiatives such as hosting international events, purchasing advanced medical equipment, supporting fairs and exhibitions and the Alberta Alcohol and Drug Abuse Commission's (AADAC) problem gambling treatment and prevention programs (10%); and (5) an endowment component, the purpose of which was to augment priorities in education and health and to stimulate the use of new technology in these areas (5%).

Unexpectedly high gambling revenues in the early 90s led to excess Lottery Fund monies being transferred to general revenue without a requirement for legislative debate or vote. As a result of several Provincial Auditor challenges, the Alberta Lottery Fund distribution was modified in 1998 to (1) prohibit lottery monies from going to general revenue and (2) have yearly Alberta Lottery Fund allotments subject to legislative debate and vote. At the same time, in agreeing to adopt the recommendations of the 1998 Gaming Summit, the government was committed to recommendation # 5, which stipulated that all gaming and lottery profits collected by the province be directed to supporting charitable or non-profit community initiatives (Alberta Hansard, March 23, 1999).

To provide more flexibility in the use of the Lottery Fund, the government modified recommendation # 5 by replacing the word "community" with the word "government." To offset lottery funds not being transferable to general revenue and, to comply with recommendation # 5, the government adopted a budgeting scheme whereby government departments could request annual Lottery Fund disbursements providing they were not earmarked for ongoing, essential government services. In the legislative debates on Alberta Lottery Fund dispersals, opposition members protested that the new budgeting process violated the spirit, if not the letter, of Gaming Summit recommendation # 5 (Alberta Hansard, Apr. 19, 1999). The gist of their disagreement being that a large percentage of the Alberta Lottery Fund was supplementing essential services under the guise of supporting charitable or non-profit community initiatives (Alberta Hansard, May 2, 2002).

Presently, the main criterion for Alberta Lottery Fund allocation is still to support charitable or non-profit community initiatives; however, as noted, government ministries can request lottery funds for special projects that do not qualify as core funding. In fiscal 2003-04 Alberta Lottery Fund estimates, the Alberta Lottery Fund disbursed $1.1 billion (Alberta Lottery Fund Estimates, 2003). The total Alberta Lottery Fund payments requested by other government departments was approximately $900 million, over 80% of the year's gambling profits.

The provincial government's summary of Lottery Fund payments lists the following 12 major categories and recommended 2003-04 dollar allocations (in millions) for each:

1. Agriculture, Food and Rural Development ($16.62)
2. Children's Services ($30)
3. Community Development ($76.1)
4. Economic Development ($14.1)
5. Gaming ($146.5)
6. Health and Wellness ($196.4)
7. Infrastructure ($145)
8. Innovation and Science ($127.5)
9. Learning ($116.4)
10. Municipal Affairs ($40)
11. Transportation ($95)
12. Finance ($95.7)

Subsumed under these 12 main categories are 70 subcategories, some of which reflect ongoing Lottery Fund commitments while others are special funding requests to the Gaming Minister from other government ministries. To illustrate, the Lottery Fund provides annual subsidies to various arts, sport and recreation, and cultural foundations; exhibition associations; research initiatives and so forth. In addition, individual ministries can submit proposals to access Lottery Fund monies for projects that do not qualify for ongoing core funding and have a community enhancement focus. The Gaming Ministry, in consultation with the Finance Ministry, prepares the yearly Lottery Fund estimates, which are debated and approved in the legislature.

While the process for distributing Lottery Fund revenues has been streamlined and democratized in recent years, questions remain about the propriety of government department programs qualifying as charitable or non-profit community initiatives, certain groups receiving funding and/or the size of allotments; for example, the following concerns have been raised:

- The Alberta Alcohol and Drug Abuse Commission receives the majority of its funding from the Alberta Lottery Fund ($49.9 million), topping up AADAC's budget is a further $9 million from general revenue. Given that AADAC has a mandate for treating and preventing problem gambling, should it be connected to gambling dollars? Controversy over whether the public interest was being served arose during the 1998 VLT crisis, as AADAC was advised by the government to be "gaming neutral" on the issue, despite the fact that AADAC had important data to inform the debate (Smith, 2003).

- As noted earlier, Alberta Lottery Fund disbursements must be "used to support specific charitable, not-for-profit, public and community-based initiatives and projects" (Gaming Licensing Policy Review, Vol. one, p 6-11). Seemingly contrary to this guideline, the Edmonton Oilers and Calgary Flames professional hockey organizations have benefited from hockey-themed lottery schemes over the past three years; in 2002 the "Breakaway to Win" game produced revenues of $1.1 million per team and the "Three Star Selection" game launched in February 2003 is expected to generate another $1.4 million in total for the two teams (Alberta Gaming and Liquor Commission *Annual Report*, 2002-2003). Questions regarding the suitability of this subsidy include: Should professional sports teams benefit from gambling proceeds? If so, why only hockey and not other professional sports groups? And, given that professional hockey has created its own financial distress, should struggling teams be helped with public funds?
- Alberta Lottery Fund dollars have been used to make accelerated provincial debt repayments ($320 million in 2002) (Alberta Hansard, April 19, 2002), which was deemed contrary to the Gaming Summit's recommendation # 5. This practice was discontinued in 2003 but Lottery Fund monies can now be diverted into the province's sustainability Fund (Alberta Hansard, April 10, 2003).
- As early as 1995 during debate on Bill 49 which dealt with the formation of the Alberta Racing Commission, opposition members questioned the wisdom of subsidizing horse racing—a so-called dying industry—with Lottery Fund monies (Alberta Hansard, Oct. 30, 1995). The Racing Industry Renewal initiative ($87.9 million over three years) is an agreement between the Alberta Gaming and Liquor Commission and the Alberta horse racing industry aimed at revitalizing live horse racing in Alberta by providing slot machines to provincial racetracks (Alberta Hansard, Apr. 10, 2003). Racetrack slot machine revenue is divided as follows: 15% commission to the host racetrack and 85% to the Lottery Fund. Of the Lottery Fund portion, 18.3% goes back to host racetracks to assist with the capital and operating costs of live horse racing and 33.3% to the Alberta Racing Corporation to enhance the purses for race horse owners. The contentious issues here are: (1) Should the government help sustain an industry that has been losing public support over the past two decades, and if so, to what extent? (2) Why is the slot machine revenue split more generous for the horse racing industry than it is for charity casinos? And (3), government priorities are called into question when significant funds are allocated to bolster the horse racing industry, while at the same time, cuts are made to education, health care, and seniors programs.
- Other concerns raised by opposition party MLAs about Alberta Lottery Fund disbursements that surfaced over the past decade include: (1) The direct competition provided by VLTs is hurting charity gambling formats (Alberta Hansard, April 26, 1994). (2) The government is using gambling revenue to

balance the budget by putting Lottery Fund proceeds into general revenue (Alberta Hansard, Feb. 14, 1995). (3) Communities are being drained by VLTs and getting only a small portion of it back (Alberta Hansard, Feb. 16, 1995); for example, it was mentioned that in the town of Drayton Valley the previous year, $4 million in VLT losses left the community and only $240,000 returned in the form of grants and projects. (4) Lottery fund payments are disproportionately given to ruling party ridings (Alberta Hansard, Mar. 25, 1996). (5) Lottery funds are being used to manipulate civic leaders as the government is proposing to divert $130 million Lottery Fund dollars to municipal transportation and infrastructure projects (Alberta Hansard, Nov. 26, 1998).

### 1.5.6 Can Municipalities Have VLTs Removed?

As noted earlier, in 1994 Premier Ralph Klein established the Lotteries Review Committee and mandated it with consulting Albertans about future directions for lotteries and gaming in the province. Recommendation 4.7 of the report (New Directions for Lotteries and Gaming, 1995, p 23) said that Alberta communities should be allowed to decide by plebiscite whether or not they want VLTs. This could be done through the Municipal Government Act, whereby citizens could petition their local council to hold a vote on the issue. The recommendation went on to state that the Alberta government would honor the result of such a vote, with the added stipulation that communities voting VLTs out would not share in VLT revenues.

Given an opportunity for input on the issue, citizen action groups, concerned about what they perceived to be adverse social and economic repercussions of VLT gambling, were quickly formed in many Alberta communities (including seven of the eight largest cities) to force a vote on whether to retain or remove the machines. During the first ten months of 1998, an impassioned debate ensued in Alberta between pro-and anti-VLT forces.

Mainly vested interest groups (provincial and local governments, hospitality and tourism industry officials and businesses that had VLTs in their establishments) defended the pro side. Their key arguments included individual freedom of choice (no one is forced to play); loss of jobs and revenue if the machines were removed; the possibility that illegal machines would flood the market; the fact that VLT revenues support many vital community programs and services, in addition to government programs; and the disclaimer that although VLTs may be hazardous for some citizens, addicted gamblers represent only a small portion of the population.

Anti-VLT adherents were a more disparate group (community, business, educational and religious leaders) whose discourse centered on the rising incidence of problem gambling attributed to the addictive nature of VLTs; suspected social and economic damages created by out-of-control VLT players; perceived invidious characteristics of the machines themselves (e.g. unfair odds, credit system of payouts, built-in near misses, entrancing sights and sounds); and government's practice of funding core services from VLT revenues.

A pro-or anti-VLT stance depended to a large extent on philosophical beliefs; for instance, Wiseman (2000, p 17) says that differences over state-sponsored gambling stem from a struggle over which value is preeminent; freedom or virtue. According to Wiseman, in jurisdictions that feature widespread legal gambling, freedom invariably triumphs over virtue, which means that the economic imperative trumps the common good. Where virtue rules as a social value, governments uphold their covenant to promote the general welfare of the people; in other words, social responsibility supercedes economic development. Indeed in the 1998 VLT debates, "freedom of choice" was the rallying cry of the pro-VLT faction along with dire economic warnings about tax increases and program cuts if VLTs were voted out (Alberta has the lowest tax rate of any Canadian jurisdiction and derives one of the highest percentages of total revenues [5.4%] from gambling (Klassen & Cosgrave, 2002). Those opposed to VLTs focused on the human costs; addiction, family upheaval, crime and diminished quality of life.

Officially, the Alberta government took a neutral stance on the issue; however, by its actions or in some cases, inaction, it assisted the pro-VLT cause. For example, the province did not allow a province-wide referendum on the issue, thus forcing citizen action groups to organize petitions to have the question on the ballot in their communities (this was no mean feat, as in Calgary 123,870 residents signed a petition asking for a civic plebiscite on the future of VLT gambling). Part of the rationale for plebiscites is the prospect of an informed debate, which implies that basic information will be made available to the public; in this instance, no official information package was issued by the government and, by silencing AADAC, important data on VLT addiction was not made available. In addition, campaign financing was unregulated, which is counter to standard practice in Canadian elections so as to avoid the undue influence of big money (Hyson, 2003). The pro-VLT Alberta Hotel Association amassed a war chest of more than $1 million which is used for a print and electronic media advertising blitz (Cunningham, 1998b), as opposed to the anti-VLT side, which was loosely organized, under-financed and dependent on volunteers.

Before the vote, Premier Klein promised that VLTs would be removed within seven days from any community that rejected them. Ultimately, plebiscites on the VLT issue were held in 37 Alberta municipalities in October 1998 and seven communities voted to remove the machines. In the aftermath of the vote, VLT retailers in the nay-saying communities challenged the government's right to terminate their VLT agreements, thus negating the Premier's promise to remove VLT within a week. The issue was entangled in court proceedings for four-and-a-half years; it took until April 2003 for VLTs to be taken from communities that voted them out. Despite the fact that a large majority of communities opted to retain VLTs, the aggregate province-wide ballot count was, 55% to keep versus 45% to remove (Azmier, 2001).

An Alberta-based post-election survey conducted by the Canada West Foundation (Azmier, 1998) asked respondents to explain why they voted the way they did on the

VLT issue; the overwhelming motivation for those voting to keep VLTs was a belief in "freedom of choice" (66%), followed distantly by "VLTs provide economic benefits" (5%) and "VLTs fund good programs" (5%). The reasons given by respondents voting to remove VLTs showed greater diversity: 29% mentioned "the high social cost of VLTs," 21% said "VLTs are addictive," 16% reported "knowing a problem gambler," and 13% believed that "VLTs lower a community's quality of life."

The Alberta direct democracy experiment with VLTs elicited strong emotions on both sides of the debate; however, as suggested by the Canada West Foundation post vote survey, a different question might have produced greater public consensus on the issue. Polling data throughout the campaign indicated that although citizens were apprehensive about the impact of VLTs on Alberta society, their main concern was the location of VLTs, rather than the machines themselves. Given the choice, citizens by a 3 to 1 margin, preferred to take VLTs out of bars and lounges and place them in casinos. The majority of those polled acknowledged a person's freedom of choice to play VLTs, but were skeptical about the ready accessibility of machines in licensed liquor outlets (Azmeir, 1998).

The ambiguous outcome of the 1998 VLT plebiscites caused the Alberta government to reflect more deeply on its gambling regulatory mandate (Gaming Licensing Policy Review, 2001).

### 1.5.7 Whether, and to What Extent, are VLTs Associated With Problem Gambling?

During the time that VLTs have been legal in the province of Alberta, three gambling and problem gambling prevalence studies have been undertaken on samples of adult Albertans. These studies (Wynne, Smith and Volberg 1994; Wynne Resources, 1998; and Smith and Wynne, 2002) each contain pertinent data on Albertans' VLT gambling proclivities at the time.

**The 1994 study** was a baseline study funded by Alberta Lotteries and Gaming to determine adult Albertans gambling patterns and behaviors and the prevalence of problem gambling among this population. Telephone survey data from 1,803 respondents were collected in the summer of 1993; only 15 months after VLTs became legal in the province. VLT gambling was still in a growth phase, having gone from 435 machines in 1992 to 1,767 in 1993, still far below the peak number of machines (6,000) reached in 1997. Given that VLT gambling was relatively new when this survey was done, its full impact on the Alberta population did not register to the extent it did in later surveys, after VLTs had become firmly implanted. Based on responses to the South Oaks Gambling Screen (SOGS), it was estimated that 4.0% of Albertans were problem gamblers and 1.4% were probable pathological gamblers, yielding a "problem" total of 5.4% of the Alberta adult population. Highlighted below are the main findings related to VLT gambling:

- Out of a sample of 1,803 adult Albertans, only 18.2% had ever played VLTs; 13.3% reported having played a VLT in the previous year; and only 2.1% reported playing VLTs at least once a week.
- Problem and pathological gamblers spent nine times more per month on VLTs ($27) than did non-problem gamblers ($3).

An important outcome from the 1994 study was the government's decision to give the Alberta Alcohol and Drug Abuse Commission (AADAC) a mandate and funding for problem gambling treatment and prevention initiatives. Initially, AADAC was given $3.2 million over three years from (approximately .005% of the annual gambling profits at the time) the Lottery Fund to perform these services (Alberta Hansard, Feb. 14, 1994).

**The 1998 study** replicated the 1994 research as part of an ongoing review of the Alberta Alcohol and Drug Abuse Commission's broad strategy to mitigate the effects of problem gambling. As in the 1994 study, the SOGS was used to assess the prevalence of problem and probable pathological gambling amongst adult Albertans. A telephone survey of 1,821 adult Albertans conducted in September 1997 produced problem and probable pathological gambling rates of 2.8% and 2.0% respectively. Compared with the 1994 study, the problem gambling prevalence rate dropped by 1.2%, while the probable pathological rate increased by 0.6%. The combined problem gambling prevalence rate of 4.8% in 1998 versus 5.4% in 1994 was 0.6% lower. However, because VLTs had been in place for five years, their impact was more pronounced than in 1994. Listed below are key survey findings related to VLT gambling:

- The percentage breakdown of those who had bet on VLTs in the past year by various sub-types was non-problem (18.1%), problem (60.8%), and probable pathological (66.7%).
- The percentage of each group that bet on VLTs weekly was non-problem (1%), problem (13.7%), and probable pathological (36.1%).
- In terms of average monthly expenditures on VLTs, the breakdown was: non-problem ($3.14), problem ($42.72), and probable pathological ($381.50).
- Probable pathological gamblers (19%) and problem gamblers (12%) were more likely than non-problem gamblers (4%) to report VLTs as their favorite gambling activity. Moreover, VLTs were ranked as the favorite gambling activity by probable pathological gamblers compared to the ninth favorite gambling activity of non-problem gamblers.

**The 2002 study**, the third of its type in Alberta in eight years, was funded by a research grant provided by the Alberta Gaming Research Institute. In the late summer of 2001, a telephone survey was conducted with 1,804 adult Albertans and, instead of the SOGS, the newly-validated Canadian Problem Gambling Index (CPGI) was used to identify problem, moderate, and low risk gamblers, as well as non-problem gamblers. The CPGI was seen as an improvement over the SOGS because of its rigorous testing in community-based surveys and well-established psychometric properties. Using the CPGI classification scheme, the gambler sub-types breakdown was: (1) non-gamblers (18%), (2) non-problem gamblers (67%), (3) low risk gamblers (9.8%), (4) moderate risk gamblers (3.9%), and (5) problem gamblers (1.3%). The last two sub-types roughly correspond to the problem and probable pathological gambling SOGS categories. As expected, the 2002 report produced more extensive data on VLT gambling than did the previous two studies and the findings germane to VLT gambling are outlined below:

- Only 13.4% of the sample reported playing a VLT in the previous 12 months.
- VLT play was associated with problem gambling in that the greater a respondent's risk of having a gambling problem the more likely the person was to have played VLTs in the past year. VLT participation rates by gambler sub-type were non-problem gambler (11.7%), low risk (31.1%), moderate risk (45.1%), and problem (60.9%).
- In terms of weekly play, a substantial difference existed between gambler sub-types; problem gamblers (57.1%) were fourteen times more likely than non-problem gamblers (4.3%) to play VLTs this often, and both low (9.1%) and moderate (34.4%) risk problem gamblers, played VLTs significantly more often than non-problem gamblers did.
- Gambler sub-types also differed widely in terms of how long VLTs were played in a typical session; the percentage of each sub-type who claimed to average more than three hours per typical VLT session were non-problem (3.6%), low risk (7.3%), moderate risk (12.5%), and problem gamblers (78.6%).
- The median monthly expenditure on VLTs rose dramatically from lowest to highest risk gambling sub-type; non-problem ($10), low risk ($20), moderate risk ($100), and problem gamblers ($700).
- In comparing the 1998 and 2002 studies it was noted that provincial VLT revenues increased by 25% from $460 million to $575 million, but the percentage of adult Albertans who had played VLTs in the previous year remained the same. This meant that higher revenues were being extracted from the same number of gamblers. In other words, the machines were being played harder; that is, longer, more frequently, and for higher dollar amounts.

Corroborating these problem gambling prevalence study findings are AADAC reports (Problem Gambling Information and Services Summary, 2001) indicating that out of 3,100 problem gambler clients serviced the previous year, 67% specified VLTs as their game preference, as opposed to casinos (13%) and bingo (12%) which followed next on the priority list. Similarly, of the 3,527 calls received by AADAC's Gambling Help Line over the same time period, 50% were VLT-related, no game preference was indicated on 24% of the calls, and 12% were casino-related. In addition, Gamblers Anonymous (GA) sources (McNabb, 2002) say that approximately 80% of new attendees show impaired control with VLT gambling and that the number of GA chapters in the province grew from two in 1991 before VLTs came on the scene, to over fifty in 2003. Based on these data, VLT play is clearly the primary concern of gambling addiction treatment specialists.

Research in other Canadian and overseas jurisdictions corroborate the Alberta findings, in that, VLTs (or similar electronic gambling machines) are the most problematic gambling format in terms of being associated with addictive behavior.

According to a Focal Research Consultant's report (1998), at certain times during the day in Nova Scotia VLT venues almost half the players are problem gamblers. Australia's Productivity Commission (1999: 6.54) estimated that one in five or six poker machine players are problem gamblers and that the favorite gambling format amongst problem gamblers was poker machines.

### 1.5.8 Do Certain VLT Characteristics Contribute to a Gambling Addiction?

One reason why VLTs are said to be more addictive than other gambling formats is that they maximize features that promote persistence of play (Morgan, Kofoed, Buchkoski, & Carr, 1996). Built into the machines are properties that encourage interactivity and a sense of anonymity—features that attract certain personality types (Griffiths, 1996). As identified by Morgan et al. (1996) and Griffiths (1999) these include:

- Frequent near-misses and small wins, with infrequent larger wins.
- Variable betting levels, coupled with the illusion of skill, promoting an illusion of control over the stimulus and the outcome.
- A highly effective variable and random reinforcement schedule based on B.F. Skinner's theory of operant conditioning.
- A high "event frequency"—the number of gambling opportunities in a given time period.
- Appealing light, color and sound effects.

During the mid 1990s, questions were raised in the Alberta legislature concerning the characteristics of VLTs, especially regarding the speed of play (Alberta Hansard, Mar. 3, 1998). The fact that a VLT game cycle can be completed in three seconds means that an action-oriented gambler can theoretically play 20 games per minute and 1,200 games an hour, which led to calls for slowing down the machines in hopes of minimizing their addictive capacity (Martin, 1998b).

Concerns were also expressed over VLT odds and payout rate and whether or not these are linked to VLT addiction. Confusion regarding these terms stems from the government's claim that the machines "pay approximately 92% of amounts wagered, averaged over extensive play" (Gaming Licensing Policy Review, 2001, 14-3). This statement is technically correct, but misleading because the money actually paid out is only part of the equation; credits are also winnings that the majority of players recycle several times per gambling session. By way of example, a person who puts $20 in a VLT and plays for an hour is actually wagering far more than the initial $20. This is because the player is betting the original amount as well as any credits earned (Nova Scotia Annual Gaming Report, 1998-1999, Vol. I).

Payout rate is the ratio of monies paid out in winnings compared to total wagers. The law of large numbers applies to VLT play; consistently, over the years Alberta VLT payout rates have been about 70%--which means that 70% of VLT wagers are returned to players and 30% retained as profit (85% of every net dollar lost goes to government and

15% to VLT retailers). This is the more meaningful of the two statistics because it indicates owner and operator profit margin and shows the virtual impossibility of beating VLTs in the long run. (While Alberta VLT profit margins seem high, they are less than those in the Australian state of Victoria which has differential profit margins depending on VLT location; for example, pokies in clubs yield a net profit of 33.3%, whereas "pokies" in pubs yield a profit of 41.66% of every dollar lost [Doughney, 2002a]).

In response to growing public concern over the perceived addictive properties of VLTs, Motion 505 (which called for altering VLTs to lessen their negative impacts, as well as provide consumers with more accurate accounting information and better entertainment value) was passed by the Alberta government (Alberta Hansard, Mar. 3, 1998). Specifically, Motion 505 advised slowing down the machines; eliminating the banking of credits and showing the actual dollars in and out; increasing the win percentage from 92% to 95 or 96%; and publicizing the true odds of playing VLTs.

The government responded to Motion 505 by initiating a pilot study to determine the effects of increasing payouts to players and slowing the speed of VLT play. For a six-week period in the spring of 1998, 134 randomly chosen machines in 79 locations throughout the province were altered to up the win percentage to 94% and slow the speed of play from three to seven seconds (Martin, 1998a; Bachusky & Dolik, 1998). In announcing this pilot test, Gaming Minister the Honorable Pat Nelson issued the following statement:

> We need the information to assess where we will go in the future. Everybody's second-guessing now. We want to see what impact it has on player habits and see the response it gets from players, be they frustrated or happy. We have no idea what the result will be. It hasn't been done before (Martin, D. 1998a, p 1).

Despite the initial fanfare, pilot test results were never made public nor were any permanent changes made to Alberta VLTs. The only reference to the pilot study is a cryptic comment in the Gaming Licensing Policy Review (2001, 14-10) stating that, "slowing down the speed of play did not appear to effect (sic) player behavior. Players continued to play for the same amount of time and bet the same amount as before ...however, since each game took longer to play, fewer games were played than before."

### 1.5.9 Current Status of the Alberta VLT Program

In its recent review of the Canadian gaming industry, KPMG (2003) reports an Alberta government profit of $736.7 million from VLT gambling in year 2002. This figure represents 28% of aggregate provincial VLT earnings and ranks Alberta second in the nation behind Quebec (40%). Table 3 provides year 2002 provincial VLT data in the following categories; per capita spending, daily VLT sales and per capita spending on all forms of licensed gambling.

Table 3 shows Alberta's dominance in three decisive wagering measures; Alberta has the highest per capita gambling expenditures on all forms of licensed gambling ($781) as well as highest per capita VLT expenditures ($330); by comparison, the Canadian average in these two categories is $577 and $236 respectively. Similarly, daily sales per VLT in Alberta of $338 are the highest of all provinces and almost twice the Canadian average of $185. Moreover, Alberta's ratio of one VLT per 374 adults ranks second lowest in the nation; Quebec at 1:384 adults is the lowest, while the Canadian average is 1:290 (KPMG, 2003) Despite a lower ratio of VLTs per adult in Alberta, those who do play the machines play them enthusiastically. This provokes the question: Why are Alberta VLT revenues so high in comparison to other provinces?

**TABLE 3**
**Provincial VLT Data and Per Capita Gambling Losses (2002)**

| Province | Yearly Per Capita VLT Losses | Daily Sales per VLT | Annual per Capita Gambling |
|---|---|---|---|
| British Columbia | NA | NA | $451 |
| Alberta | $330 | $338 | $781 |
| Saskatchewan | $316 | $168 | $672 |
| Manitoba | $259 | $112 | $612 |
| Ontario | NA | NA | $527 |
| Quebec | $189 | $199 | $604 |
| New Brunswick | $199 | $110 | $435 |
| Nova Scotia | $228 | $138 | $595 |
| P.E.I. | $142 | $98 | $396 |
| Newfoundland | $276 | $116 | $531 |
| Canada | $236 | $187 | $577 |

* These figures are from *Canadian Gaming Industry Highlights* (KPMP, 2003).

Two recent happenings in Alberta may affect future VLT revenues, these include: (1) All newly installed VLTs are equipped with responsible gaming features; however, since the impact of these games and features have yet to be evaluated, whether this initiative will have the desired effect of mitigating problem gambling, while concurrently maintaining revenues is yet unknown. (2) Stemming from the 1998 VLT plebiscites, a recent Court of Queen's Bench decision defeated a constitutional challenge to the provisions of the *Gaming and Liquor Act,* thus lifting a four-year court injunction and resulting in the removal of VLTs in seven Alberta municipalities. "On April 29, 2003, the AGLC removed 199 VLTs and terminated the agreements with 36 retailers from the seven municipalities" (AGLC Annual Report, 2002-2003). The 199 VLTs were reallocated to new and existing retailers. One of the municipalities (Fort McMurray) had 91 VLTs in 15 locations that produced $20.2 million in profit in the past fiscal year. Whether this VLT revenue reduction can be made up by increases in other municipalities is yet to be determined.

## 1.6 Summary

This chapter provided a background for VLT gambling in Canada by explaining how the activity became legalized and how it spread across the country. A rationale and purpose for the study was provided, as well as a description of how VLT gambling evolved in the province of Alberta. Central to the evolution discussion were analyses of major Alberta government reviews and reports that dealt with VLT issues, as well as general gambling concerns in the province. Alberta Hansard was searched from 1991 to the present to capture the legislative debate on VLT gambling. From our reading of Alberta Hansard we framed the political give and take on VLTs by distilling the twelve years of discussion into eight categories. Lastly, we compared Alberta to other Canadian provinces with respect to yearly per capita VLT losses, daily sales per VLT and annual per capita gambling expenditures.

Turning now to Chapter Two, we examine the academic literature on electronic machine gambling.

# CHAPTER TWO
# REVIEW OF THE LITERATURE

In this section we review the academic literature on electronic gambling machines. Because of the role it played in stimulating and informing the 1998 Alberta VLT debate, we look first at the discussion emanating from the University of Alberta (Department of Government Studies hosted) conference on the theme "VLTs and Electronic Gaming: Issues & Impacts" held on February 18-20, 1998. The conference was intended as an impartial forum with the goal of providing commentary on all aspects of the issue and including the diverse viewpoints of provincial and municipal politicians, gambling industry spokespersons, problem gambling treatment specialists, law enforcement personnel, lawyers, social activists, academics and media representatives. The only prominent stakeholder group not heard from was the Alberta Hotel Association, who were invited, but declined to participate. Given the conference's panoramic coverage of VLT issues, it seems fitting to begin the literature review with a summary of its proceedings and from there, focus on the most recent academic research on VLT gambling.

## 2.1 "VLTs and Electronic Gaming Issues & Impacts" Conference

### 2.1.1 Keynote Address

Internationally recognized gambling scholar Dr. Bill Eadington, Director of the University of Nevada, Reno's Institute for the Study of Gambling and Commercial Gaming, provided the keynote address and spoke on the transformation of gambling from "basically an outlaw activity to today's adult entertainment phenomenon." Eadington noted the broad support for gambling in the general population, but suggested that this acceptance is shallow and driven largely by those who benefit directly from the activity. Eadington stated that VLTs are a hard-core form of gambling and that the placement of VLTs in convenience locations is the most controversial issue facing the gambling industry. In terms of remedial measures to lessen the impact of VLT gambling, Eadington suggested developing ways of isolating and/or protecting problem gamblers including such radical reforms as issuing individual gambling licenses that could be revoked if used immoderately and placing prior constraints on how much individuals could spend in a given gambling session.

### 2.1.2 Provincial Government View

Two provincial legislators Carol Haley (MLA Airdrie—Rocky View) and Judy Gordon (MLA Lacombe—Stettler), addressed the conference: Haley overviewed VLT gambling both in Canada and Alberta and claimed that the main impetus for introducing VLTs to Alberta was the threat of illegal (grey) machines flooding the market—"illegal machines contribute nothing to the community, whereas legal machine revenues can be used for community and provincial benefits." Gordon conceded that the upcoming plebiscites on VLT gambling were putting pressure on the provincial government to make decisions; she stated, "If cities and towns vote to remove VLTs, taxes will have to go up." Instead of removing VLTs, Gordon proposed altering the machines to reduce their negative impacts by (1) slowing down the speed of play, (2) using actual dollar amounts rather than credits on the screen display and (3) increasing payout rates.

### 2.1.3 Municipal Government View

Representing Alberta municipal governments was Tom McGee, Mayor of the town of Drayton Valley, who commented on the VLT petitions and votes in communities that had already been held. McGee's impressions included: (1) only a small portion of the VLT revenues extracted from communities is returned by the province; (2) having ten per cent of a community's citizens sign a petition in order get the VLT issue on the ballot is an onerous and unnecessary task--a province-wide vote should be held, not community by community; (3) the VLT issue divides some communities, as it pits various sectors against one another; (4) even though problem gambling prevalence rates are quite low, the four or five individuals so afflicted really stick out in a small town; and (5) citizens living just outside the town cannot vote, yet are affected by the issue because, for all intents and purposes, they are part of the town community.

### 2.1.4 Gambling Industry Outlook

Representing the gambling industry were VLT manufacturer Carlos Lozano (Vice President, Power House Technologies), Alberta casino executives Barry Pritchard (Casino ABS) and Frank Sissons (Silver Dollar Casino), and Marie-Claire Hardy (Gaming Career Centre). Lozano (1998) spoke about the "entertainment strategy" of VLTs; namely, they are designed around the following guidelines: played for low stakes; offer a low tier prize structure; age controlled environments; located in easily available locations; and provide government economic benefits. The machines are relatively inexpensive to purchase and maintain, offer precise financial accountability, and are useful for marketing analysis. Lozano also highlighted current trends in the electronic gambling machine industry, including higher wager and win limits, broader game concepts, and direct pay options (coin pay-outs).

The casino executives noted that the introduction of slot machines into their establishments in 1996 was due in part to the extra revenues that charities could generate; table games being far more labor intensive and costly to operate than slot machines. In their view, prohibiting VLTs was not the answer; to them the VLT issue was more about accessibility than the machines themselves, with the best solution being to restrict VLTs to dedicated gambling venues. It was acknowledged that this solution would hurt government gaming revenues in three ways: VLT play would decrease because there would be fewer of them; they would be less accessible; and the government might have to compensate businesses that lose VLTs.

### 2.1.5 Social Activist Concerns

Two individuals (Jim Gray, CEO of Canadian Hunter Exploration in Calgary and the Reverend Tim Richolt from Rocky Mountain House) were actively involved in petition campaigns to have the VLT question on the ballot in their communities, and spoke in favor of banning VLTs. Their main points of emphasis included:

- VLTs were introduced to Alberta without citizen approval or a full assessment of the possible costs to society.
- The only winners from VLTs are the provincial government and bar owners. Losers include those dependent on other forms of gambling which do not compete well with VLTs, regular VLT players who cannot overcome the high odds against them, and individual problem gamblers and their families, friends and employers.
- VLT gambling is associated with problem gambling and an increase in crime.
- VLT gambling erodes social values and diminishes Albertans' quality of life.

### 2.1.6 Problem Gambling Treatment Issues

Addressing this topic were Barry Andres, an Alberta Alcohol and Drug Abuse Commission (AADAC) gambling addiction treatment specialist, who outlined AADAC's mandate for treating and preventing problem gambling along with the services it provides, and Dr. Robert Hunter, a pioneer in problem gambling treatment and the Director of Nevada Psychological Associates. Based on his twenty-five years of rehabilitating problem gamblers, alcoholics and drug addicts in Las Vegas, Dr. Hunter coined the phrase "VLTs are the crack cocaine of gambling." The perils of VLT gambling according to Dr. Hunter included: (1) VLTs facilitate the dissociative process more so than other gambling formats; (2) VLTs are associated with suicide (thoughts, attempts and completions); (3) VLTs have the potential to change the fabric of society—in his Las Vegas treatment group 52% were women and 98% of them played VLTs; (4) if VLTs become widespread, Hunter believed that problem gamblers will rise to 10% of the population—about the same as alcoholics; and (5) Dr. Hunter concluded with the statement "if you don't think gambling is a serious problem for society, consider that no alcoholic has ever drank away four generations of money in a weekend—which I know that gamblers can and do."

### 2.1.7 Legal and Law Enforcement Position

This topic was presented by RCMP Sgt. Bob McDonald, Hal Pruden of the federal Ministry of Justice, and Barry Sjolie an Edmonton lawyer with the Brownlee Fryett firm. Bob McDonald solicited input from Alberta RCMP field officers to determine how, and to what extent, the presence of VLTs impacted on their law enforcement duties; and his observations included:

- In the previous year the RCMP in Alberta had responded to occurrences of robbery, theft, assault, fraud, mischief, bankruptcy, suspected arson, child neglect, missing persons, and suicides associated with VLT gambling.
- Most of the individuals implicated in these criminal offences related to VLT gambling had no prior involvement with the law.
- Alberta financial institutions are noticing an escalating problem of internal theft which they attribute to the offenders' participation in VLT gambling.
- The implementation of VLT gambling in Alberta does not appear to have reduced illegal gambling in any substantial way. There are still sports bookmakers, illegal card rooms, illegal lotteries, and even illegal gambling machines.
- While not inferring that VLTs be outlawed, McDonald suggested that greater effort be applied by governments to reduce the detrimental effects of VLTs and to ensure the overall well being of the public. Based on his observation that VLT gambling is a public safety issue, McDonald also recommended an increased federal government presence in gambling regulation.

Hal Pruden, speaking on behalf of the federal Ministry of Justice, noted how in Canada, all provinces have the right to decide if they want VLTs; whereas, in the United States, laws must be changed on a state-by-state basis if machine gambling is to be introduced. Pruden preferred the Canadian set-up whereby the Canadian Criminal Code dictates which forms of gambling are legal and provinces can opt in or out as they see fit.

Attorney, Barry Sjolie, reviewed and clarified VLT legal issues as they pertain to municipalities. In his address, Sjolie advised that (1) a municipality has no jurisdiction to regulate VLTs except possibly by using limited authority through Land Use Bylaws; (2) a municipality could, however, request that the AGLC prohibit VLTs within its boundaries; (3) The Municipal Government Act could be used to put the VLT question to its electors; however, the results of this public vote would technically not be binding on the AGLC, although the provincial government had earlier stated that it would honor the results of community plebiscites on VLTs and remove them if that was the wish of the community.

### 2.1.8 Academic Perspective

Besides professor Eadington, several academics made presentations including Kate Diskin, University of Calgary (Do Problem Gamblers Display a greater level of Absorption?); Dr. Harold Wynne, Wynne Resources (What the Research Tells us About Problem Gambling); Drs. Fred Preston and Bo Bernhard, University of Nevada, Las Vegas (Video Poker Issues in Las Vegas); Dr Frank Quinn, Carolina Psychiatric Services (The South Carolina VLT Experience); Dr. William Thompson, University of Nevada Las Vegas (Social and Economic Impacts of Electronic Gambling); and Dr. Colin Campbell, Douglas College (conference summary). Key points made by these presenters include:

- In a study comparing groups of VLT playing problem gamblers with social (non-problem) gamblers, Diskin (1998) found that the problem gamblers were more likely to have felt like they were in a trance, to take on another identity, and to lose track of time while gambling than the non-problem gambler group. This was perceived as a concern because VLT gambling is the format most closely associated with these experiences.

- In his analysis of electronic gambling research, Wynne (1998) emphasized recurring themes in the literature; for example, (1) "near misses," which presumably are built into VLTs, cause some players to mistakenly believe that a win is imminent (it is important to note here that James Maida (1997), a specialist in testing and certifying electronic gaming equipment and systems, contends that the near miss phenomenon went out in the 1980s and now is non-existent on North American electronic gambling machines) (2) continuous play games (VLTs are the ultimate continuous play format) are linked to pathological gambling, and (3) teenage video game playing has been linked to later VLT addiction, and this is a "dark cloud on the horizon" because these are the new gamblers when they reach the age of majority.
- Drs. Preston and Bernhard noted that video poker (VLTs) was replacing other Las Vegas gambling formats in market share and this trend was rapidly accelerating; eighty per cent of the problem gamblers in the Las Vegas-based Charter Hospital treatment program were VLT players and 40% of these are female; and it makes no economic sense to play video poker even at a 97% payback. "How many people would bite if you said give me a dollar and I will give you back 97 cents, then do it over and over again until they were broke" (Bernhard, 1998).
- Thompson (1998) criticized jurisdictions that allow VLTs in convenience locations (e.g. taverns, restaurants, and in the case of Nevada, convenience and grocery stores) on the grounds that they violate good public policy. Specifically, because they extract money from local citizens (often those individuals unhappy with their life circumstances and prone to problem gambling behavior) and because the machines have no tourist appeal.
- Dr. Quinn (1998) described the situation in South Carolina, where a loophole in state law was exploited to allow 35,000 virtually unregulated machines into the state. According to Quinn, VLTs were everywhere from bowling alleys to hairdressing salons and the machines were owned by proprietors who set their own payout rates. Pressuring the legislature to ban the machines failed initially because the machine operators were a powerful lobby group that wielded a treasury of campaign contribution funds. However, as the perceived social and economic damages from machine gambling mounted so did citizen concern. Ultimately, a law was passed in the South Carolina legislature that led to VLTs being banned from the state as of July 1, 2000.
- In his conference summary, Dr. Campbell (1998) emphasized the following points: (1) the Alberta VLT debate points out the relevancy of gambling as a public policy issue; (2) problem gambling is the Achilles' heel of the legal gambling industry and this is especially pertinent to electronic gambling devices which are seen as the gambling format with the greatest propensity for generating problem gamblers; (3) the economic success of VLTs in Alberta has created a rift between the Alberta provincial government and a significant

number of municipalities, because VLTs have adverse effects and only a small portion of VLT revenues are returned to communities; and (4) the provincial government's dependence on gambling revenues makes it ill-equipped to arbitrate legal and public policy responses to gambling. In other words, because the Alberta government is a major stakeholder in gambling due to its conflicting roles of policy maker, regulator, promoter and beneficiary of gambling revenue, it is debatable whether it can act objectively in the public interest with respect to gambling concerns.

## 2.2 Canadian Public Attitudes Toward VLTs

The only national study of gambling attitudes was a random sample telephone survey administered to 2,202 Canadian respondents (Azmier, 2000). VLT-related findings from this survey include the following:

- Only 8.4% of Canadians had played a VLT the previous year (VLTs are not offered in Ontario and British Columbia), making VLTs the eighth most popular gambling format in this survey.
- VLTs were available to 63% of the sample within 50 kms of home.
- The majority of respondents (70%) agreed with restricting VLTs to dedicated gambling venues (casinos and race tracks).
- The sample was split on the question of banning VLTs altogether; 43% disagreeing and 41% in favor. Among respondents holding the firmest opinions on the issue 28% strongly agreed that VLTs should be banned as opposed to 18% who strongly disagreed with a ban on VLTs.
- Regional variances in responses to the VLT ban question showed the Maritime provinces most opposed to VLT gambling (62% in favor of a ban), followed by BC (44%), Quebec (40%), the prairie provinces (38%), and Ontario (37%).
- In terms of demographics, women were more likely than men to agree that VLTs should be banned and those over 55 years of age were much more likely than the 18-34 age cohort to agree with a ban on VLTs.
- While not specific to VLT gambling, several questions on how gambling availability impacts quality of life were posed: (1) 60% of the sample agreed that gambling-related problems had increased in their province in the past three years, versus 12% who disagreed; (2) 9% agreed that gambling has had an overall positive impact on their community, versus 24% who perceived the overall impact of gambling to be negative; and (3) 68% disagreed that gambling had improved the quality of life in their province, as opposed to 14% who thought gambling was beneficial to quality of life.

Based on this evidence, Azmier (2000) noted a wide gap between public opinion related to VLTs and government VLT policies, and suggested that if this incongruence was not resolved, VLT gambling may not be sustainable.

Nova Scotia is the only province to have published an in-depth analysis of public attitudes toward VLTs (Nova Scotia Annual Gaming Report, 1998-1999, Vol. I). Important findings from this study are as follows:

- VLTs had the highest disapproval rate (66%) of any gambling format in Nova Scotia.
- Acceptance of VLTs was highest among men (23%) versus women (12%), and those under the age of 54 (20%) versus those 54 and over (9%).
- A large majority of the sample (79%) disapproved of ATMs at VLT sites.
- While bill acceptors were not available on Nova Scotia VLTs at the time of the survey, the majority of respondents (62%) disagreed with introducing this feature.
- 55% of respondents agreed they would prefer to see VLTs reduced in number or banned altogether from the province, even if it meant an increase in personal tax.
- 49% of respondents reported knowing a person with a gambling problem; of this group, 81% said that VLTs were the source of the problem. Slot machines (21%) were second in this category.

Similar to the national study of Canadians' gambling attitudes, the Nova Scotia survey showed a sizable gulf between respondent attitudes toward VLTs and government VLT policies.

Other, and perhaps more telling indicators of public attitudes toward VLTs than opinion surveys, are (a) actions taken by individual citizens to file law suits against provincial governments (Quebec, Ontario and Nova Scotia) seeking monetary compensation for harms allegedly caused by exposure to electronic gambling machines (Richer, 2003); and (b) the fact that VLT-related plebiscites have been held in four provinces (New Brunswick, PEI, Manitoba and Alberta). No other Canadian legal gambling format has raised anywhere near the same citizen ill will as VLT gambling has.

## 2.3 Standard Electronic Gambling Machine Features

Electronic gambling machines are found in numerous cultures and in various guises around the world; while similar entities, they are colloquially known as "fruit machines" in Britain, "pokies" in Australia and New Zealand, "video poker" or "slots" in America, and "video lottery terminals" in Canada. Dickerson (1996) asserts that "machine characteristics are essentially the same for all countries and players and therefore the psychological processes that underlie player attraction to, and persistence at, machine play may be common to all players regardless of culture or nationality" (p 152). Common features of electronic gambling machines according to Reith (1999, p 107-108) are:

- Outcomes are randomly generated and prizes won when a certain pattern or configuration of images is produced.

- Player involvement includes activating the machine by inserting money and responding to the commands and options flashed on the screen. This so called involvement gives some players the impression that their choices influence the game outcome, when in fact; these are games of pure chance.
- Although gamblers are theoretically free to play at their own pace, the machines are "deliberately designed to seduce players into a rhythm of repetitive, continuous play."
- Each machine is "a self-contained gambling unit, accepting the player's stake and paying out a prize, and so rendering the presence of other players entirely superfluous."
- Generally, electronic gambling machines are found in adult environments such as private clubs and/or liquor licensed premises (notable exceptions include Britain where they are also found in non-age restricted locations such as cafes, sports centres and arcades and in Nevada, where they are in grocery stores and airports).

These machine features play a significant role in determining who plays, how they play, and how much revenue is produced. These consequences are discussed in the following section.

## 2.4 Electronic Gambling Machines: Issues and Impacts

The perceived impacts of electronic gambling machines are many and varied. Despite the obvious economic benefits of VLT gambling for governments and retailers, our literature search revealed only two studies favorable to electronic machine gambling (Lynch, 1990; Mizerski, Jolley & Mizerski, 2001). The literature generally reflects the ongoing tension between the revenue generating capacity of VLTs and their mesmerizing effects on individuals and economic drain on society. In this section we present the main points of contention over VLT gambling:

### 2.4.1 The Association of VLT Play with Gambling Addiction

**Structural Factors.** Studies done in the early and mid 1980s examined the impact of excessive video game play among male teenagers and found many of the same behavioral symptoms associated with other addictions (Soper & Miller, 1983; Anderson & Ford, 1986). While the video games in the above studies did not have a gambling component, Griffiths (1990) applied a similar methodology to investigate self-confessed addicted, teen-aged male fruit machine gamblers in a British arcade. Griffiths observed that some subjects used the machines as an escape mechanism when they were depressed. Play features such as "hold" buttons stimulated the illusion that skill was involved, and the "near miss" phenomenon increased player arousal and seemed to reinforce extended play on the machines. Corroborating Griffiths' thoughts on "near misses" or "near wins" is a recent experimental study of VLT play that showed subjects exposed to 27% near wins in a series of continuous losses, opposed to a control group exposed to zero near wins, played 33% more games than did the control group (Cote, Caron, Aubert & Ladouceur, 2003). Study participants could play for as long as they wished and were given real money for their wins. The authors concluded that near wins were motivating factors for prolonging VLT play despite the likelihood of monetary loss.

Gupta and Derevensky (1996) examined adolescent video-game playing and gambling behavior. In studying 104 subjects in the 9 to 14 age range, they found that high frequency video-game players gambled more than low frequency video-game players; subjects reported that gambling made them feel more important; they took greater risks when gambling; and they overestimated the role that skill played in an experimental gambling task. An inference drawn from this study is that frequent video-game playing among adolescents may be a precursor of excessive electronic machine gambling play once the age of majority is reached.

From his exploratory research, Griffiths (1993) progressed to investigating the structural characteristics of fruit machines and their possible link to gambling addiction. Griffith hypothesized that the structural characteristics of fruit machines are reinforcers that satisfy player needs and contribute to excessive gambling. The machine characteristics he researched include pay out interval and event frequency; the psychology of the near miss and symbol ratio proportions; multiplier potential; player involvement and skill; win probability; light and sound effects; the psychology of naming; and suspension of judgment. Griffiths (1993) concluded that the "structural characteristics of fruit machines, at the very least, have the potential to induce excessive gambling regardless of the gambler's biological and psychobiological constitution" (p 115). He also speculated that the gambling-inducing structural characteristics of fruit machines could be why large portions of compulsive gamblers are attracted to them. Based on this pioneering work, Griffiths (1993) recommended that pay outs be in money rather than credits; arousing lights and sounds be limited; notices on machines indicate the pay out rate and win probability and emphasize that game outcomes are chance determined. It is interesting to note that Griffiths' research was published a decade ago, yet jurisdictions have only recently begun mandating some of these same harm reduction features.

Griffiths" (1995) research on the structural characteristics of electronic gambling machines has been replicated and expanded upon by other scholars who, in the main, have verified his findings. For example, research shows that machine players are more likely than those who prefer other gambling formats to (1) lose control, reach a dissociative state, and lose track of time and money spent (Smith, Volberg & Wynne, 1994); (2) be influenced by bonus plays, lights and sounds, stop button and "near misses" to the extent that it leads some gamblers to overextend themselves, although the speed of the machine was not seen as a factor leading to problem play (Nova Scotia Annual Gaming Report, 1998-1999); (3) believe there is a skill dimension to gambling machine play and to overestimate their chances of winning (Coulombe, Ladouceur, Desharnais & Jobin, 1992; Walker, 1995; and Cotte, 1997); and (4) attract individuals seeking to escape from boredom or family responsibilities (Dow Schull, 2002).

To further identify the factors associated with electronic gambling machine addiction and to examine ways of tempering the negative impacts of VLTs (Stewart, Blackburn & Klein, 2000), several Canadian university psychology departments (Dalhousie, Laval, Calgary and Lethbridge) instituted gambling laboratories with government issued VLTs. Major challenges faced by these laboratories include (a) recreating an authentic gambling experience while maintaining strict experimental control, and (b) dealing with ethical issues related to participant recruitment including reimbursement and service of alcohol to problem gambling subjects. Important findings from Canadian VLT laboratory studies dealing with the structural characteristics of electronic gambling machines include:

- Pathological gamblers were slower than occasional gamblers in reacting to irrelevant stimuli when playing a demonstration VLT (Diskin & Hodgins, 1999), which suggests that they are more focused on the machines and less easily distracted.
- By altering certain VLT features and comparing the reactions to these alterations among non-pathological and pathological gamblers, it was found that sensory manipulations (fast speed/sound or slow speed/no sound) produced the most dramatic reaction differences (Loba, Stewart, Klein, & Blackburn, 2001). For pathological gamblers, decreasing speed and eliminating sound dampened ratings of enjoyment, excitement, and tension-reduction relative to non-pathological gamblers. Pathological gamblers also experienced more difficulty in stopping their play than did non-pathological gamblers at normal settings and under fast speed and sound conditions.
- Psychophysiological (as measured by EMG, SCL and heart rate) and subjective arousal states of at-play pathological and non-pathological VLT gamblers were compared and found to be similar in terms of an increased physiological response. Pathological gamblers, however, reported higher levels of subjective excitement and more dissociative experiences (Diskin & Hodgins, 2003). This finding led the authors to posit that pathological gamblers perceive the VLT gambling experience differently than do non-pathological gamblers.

**Situational Factors.** Besides the built in properties of VLTs that are thought to promote gambling addiction amongst vulnerable individuals, scholars have identified situational factors that may also contribute to excessive VLT play (Smoliak, 1997). Examples of these situational factors include: (1) availability (number of machines, location, density, and advertising); (2) accessibility [type of venue (e.g. convenience location/licensed establishment/dedicated gambling venue) hours of operation, and seating capacity]; (3) pricing (e.g. minimum and maximum wagers); (4) automatic teller machines (ATMs) on the premises; and (5) whether or not alcohol consumption is allowed.

It has been noted that "event frequency," or the number of opportunities to wager in a specific time period, is a factor related to the emergence of gambling problems (Griffiths, 1999); electronic gambling machines offer the highest event frequency of any existing legal gambling format. When electronic gambling machines are widespread in an Australian jurisdiction and particularly so if they are in convenience locations, the number of adults playing the machines goes up as does the proportion of players who develop gambling problems (Productivity Commission, 1999). Similarly, in American states, machines per capita is a statistic associated with higher problem gambling prevalence rates (Volberg, 2001), and, constitutes "a critical policy issue" (p 60).

Several studies indicate an association between problem gambling and alcoholism in both clinical and community samples (Baron & Dickerson, 1999; Smart & Ferris, 1996; and Elia & Jacobs, 1993). Moreover, surveys show that the majority of VLT players report drinking alcohol while playing. A recent laboratory study (Stewart, McWilliams, Blackburn & Klein, 2002) examined the impact of VLT play on alcohol use and whether combining VLT play and alcohol intake contributes to a negative mood state. As hypothesized, the authors found that VLT players, as opposed to a control group of movie viewers, were more likely to consume alcoholic beverages and, the imbibing VLT players, were more likely than control group and non-alcohol consuming VLT playing subjects to experience dysphoric moods. These findings have implications for both policy makers and problem gambling clinicians; for example, revisiting the policy of providing alcohol at machine gambling venues and the need for treatment specialists to consider the interaction effects of drinking alcohol while gambling.

A second experimental study conducted by the Dalhousie University research team (Stewart, Loba, Blackburn, Ellery & Klein, 2003) examined heart rate responses to VLT play and alcohol intake. Their main findings were (1) that both alcohol and VLT gambling alone cause heart rate increases; and (2) that the combination of alcohol intake and VLT play leads to further heart rate increases relative to each activity alone. The authors' speculate that the exaggerated heart rate response reflects a heightened activation of the reward system and may help explain problem gambling co-morbidity and why many recreational VLT players drink while gambling.

A community sample of non-pathological N=14) and probable pathological (N=16) video lottery terminal gamblers mean heart rates and subjective ratings of arousal were higher in a lounge versus a laboratory setting, whereas skin conductance tests did not differ between locations (Diskin, Hodgins & Skitch, 2003). There were no significant differences in psychophysiological or subjective measures between the two gambler subtypes in either test setting.

An Australian-based study comparing hotel and club patrons electronic gambling machine behaviors found that hotel, more so than club participants, reported more gambling problems, were male, younger, consumed more alcohol, smoked more, bet more credits per line, used on site ATMs more often, and sustained heavier losses (Sharpe, Blaszczynski, Walker, Enerson & Coughlan, 2002). This finding suggests that the hotel environment (with its combination of alcohol, gambling and access to unplanned funds) encourages problem gambling behavior and supports the authors' hypothesis; that is, a cluster of impulsive behaviors are associated with problem gambling, particularly in a hotel setting.

Blaszczcynski, Sharpe and Walker's (2001) findings accentuate the difference in atmospheres between Australian club and hotel poker machine venues; in that, 16% of the club players versus 28% of the hotel participants scored five or higher on the SOGS, thus qualifying as probable pathological gamblers.

Corroborating the conjecture that the Australian club atmosphere is more congenial and less threatening to poker machine players than is the hotel/pub environment are the findings of Lynch (1990). In studying a select group of regular (at least once per week in the previous year) club-based poker machine players who had won a minimum of six jackpots, Lynch found his informants to be players who could afford and tolerate their losses. Lynch contended, that poker machine play in this environment was a status-leveler because "no one person is better than anyone else" (p 204); and the idea that each poker machine player has an equal chance of winning regardless of skill, intelligence or social standing. Given their "difficult day-to-day experiences" (p 204), this working-class sample were not used to being treated as equals in the outside world.

While Lynch's (1990) study is useful in demonstrating how situational factors relate to gambling behavior, it is flawed to the extent that only multi-jackpot winners were surveyed. A randomly drawn sample of poker machine players may have produced different results.

Thompson (1998), in considering the placement of electronic gambling machines, maintains there are marked differences in clientele, ambiance and operator attitudes in comparing dedicated gambling venues such as casinos and racetracks to establishments that incidentally offer gambling along with dining, drinking and entertainment; the latter scenario being more conducive to uncontrolled gambling behavior.

**Individual Factors:** Also influencing peoples' response to electronic gambling machines are idiosyncratic factors such as coping mechanisms, mood state, genetic make-up and demographic profile (i.e., gender, age, and ethnicity). In this section we discuss individual and demographic characteristics that are presumed to affect gambling behavior in general, and electronic machine gambling, in particular:

- Self Control/Coping Styles/motivational factors. Problem gamblers are by definition, out-of-control. According to Jacobs (1986), most problem gamblers are unhappy with their life circumstances, and consequently, use gambling as a coping mechanism to numb their psychic pain or dissociate from reality altogether. The unhappy life circumstances may stem from unresolved childhood crises, personality disorders, poor self image, feelings of inferiority, unsatisfying marriage or job situation and so forth. Whatever the underlying reason, those in this predicament are vulnerable to becoming problem gamblers. The preferred gambling format for many problem gamblers is electronic gambling machines (Dickerson, 1993); mainly because of structural factors such as the rapidity of play and the enchanting lights and sounds which allow players to momentarily escape their day-to-day troubles. Uncontrolled gamblers differ from controlled gamblers in that they (1) start gambling at an earlier age, (2) prefer continuous gambling formats, (3) spend more time and money in a typical gambling session, (3) suffer more drastic negative repercussions as a result of their gambling involvement, (4) invariably chase their losses, (5) gamble longer and with more money than planned, (6) gamble when angry or depressed, and (7) are more likely to feel disconsolate after a gambling session (Smith, Volberg & Wynne, (1994).

A study of problem gambling poker machine players in Australia found that individual coping styles and motivational predispositions could be used to predict problem gambling behavior (McBain and Ohtsuka, 2001). Specifically, using a non-productive coping style (e.g. wishful thinking, ignoring the problem, self blame) and gambling motivated by a belief in winning, a need to escape and a desire to be alone were reliable predictors of problem gambling behavior.

A similar Australian-based study investigated the relationship between impaired control over gambling and coping strategies in female poker machine players in a naturalistic and non-clinical environment (Scannell, Quirk, Smith, Maddern, & Dickerson, 2000). Key findings from this study include: (1) control over gambling was significantly related to duration and frequency of poker machine playing (i.e. the longer and more often the machines were played the less control exhibited by respondents); (2) no significant relationships between control over gambling and age, employment, relationship status, education or distress from significant life events; (3) female gamblers that relied mainly on emotion-focused coping strategies had a lower level of control over their gambling than did females who used problem-focused coping strategies to control their gambling behavior; and (4) while the study suggests a relationship between coping style and gambling behavior among females, it is not known whether respondents' coping style was specific to poker machine play or would also transfer to other gambling formats.

An Australian study comparing male and female coping styles found that for female gamblers; loneliness, boredom, anxiety, depression and avoidance coping all independently predicted problem gambling behavior (Thomas & Moore, 2001). The same study noted that only loneliness, boredom and stress significantly predicted problem gambling in males. These differences led the author's to conclude that females are more likely than males to gamble to escape dysphoric moods.

A longitudinal study of at-risk recreational electronic gambling machine players that examined the correlates of problem gambling behavior (Dickerson, Haw & Shepherd, 2003), found impulsivity, depression and non-productive coping styles to be the only significant predictors of impaired control. The authors went on to suggest that the role of emotions in gambling behavior has been overlooked and should be included in future studies of this nature.

Other psychological mechanisms thought to contribute to the development and maintenance of problem gambling includes both state and trait anxiety levels (Rodda & Phillips, 2001) and impulsivity (Blaszczynski, Steel & McConaghy, 1997; Vitaro, Arseneault, & Tremblay, 1997).

- Co-morbidity. This refers to the presence of more than one clinically diagnosable psychological disorder in an individual at a given point in time. Problem gamblers have high rates of co-morbid psychological disorders (Beaudoin, & Cox, 1999; Blaszczynski & Steel, 1998; Cunningham-Williams, Cotler, Wilson, Compton III & Spitznagel, 1998). The most common co-morbid psychological disorders among problem gamblers are alcohol and other substance dependence (narcotics and nicotine), impulse control disorders (e.g., shopping, promiscuous sexual behavior, attention-deficit-hyperactivity disorder), major depressive disorder, anxiety and personality disorders (Liljequist, 2001).

- Cognitive Impairment. It has been well documented that problem gamblers have faulty cognitions related to their chances of winning (Coventry & Norman, 1998; Toneatto, 1999; and Kyngdon & Dickerson, 1999). Examples of erroneous thinking patterns that are typical of problem gamblers include: (1) the gambler's fallacy—a belief that previous plays in a pure chance game have a bearing on future plays. The gambler fails to understand probability theory—that each trial is independent of the last and that the odds of winning remain the same; (2) illusion of control—a belief that skill can be applied to a pure chance gambling situation; (3) magical thinking--beliefs that do not conform to the known laws of science (e.g., that sitting in a lucky chair or wearing a favorite coat improves one's chances of winning); and (4) selective retention—remembering big wins and forgetting big losses. A study of regular EGM players found that 75% of their gambling-related cognitions were unfounded and foremost among these false beliefs were that game outcomes could be controlled and predicted (Delfabbro & Winefield, 2000). In an observational study of Australian poker machine players, Walker (2001) noted that players did develop strategies for playing the machines. The three most common being (1) betting the maximum number of lines with the minimum number of credits per line, (2) not doubling a current win at the risk of losing that win and (3) searching for a hot machine. Walker noted that intuitively these strategies make sense; however, none of these options is supported by a rational consideration of the odds.

- Genetic Predisposition. This was found to contribute to the development of a gambling pathology in two recent twin studies. Eisen, Nong, Lyons, Scherrer, Griffith, True, Goldberg & Tsuang (1998) found that familial (genetic and environmental) factors accounted for 62% of the variance in risk for becoming a pathological gambler. Slutske, Eisen, True, Lyons, Goldberg & Tsuang (2000) concluded that most of the variance (64%) in explaining the development of a gambling pathology was attributable to genetic factors. In a third twin study, Winters & Rich (1998) found that general gambling involvement was mediated more by environmental than genetic factors; however, a genetic influence was more pronounced among respondents who preferred "high action" games (scratch tabs, lottery, casino card games and electronic gambling machines). The implication of these findings is that some individuals are susceptible to a machine gambling addiction regardless of machine structural features.

- Demographic Characteristics. In terms of gender, males have traditionally gambled more than females and preferred different gambling formats (Volberg, 2001); however, with the proliferation of electronic gambling machines there has been increased participation by females (Kweitel & Allen, 2001). Gender-based studies of electronic gambling machine play show that poker machine gambling is the preferred form of gambling for women (Brown and Coventry, 1997); females are more likely than males to prolong their playing time on the machines, but no gender differences in problem gambling prevalence rates were found (Hing & Breen, 2001); and, in a sample of pathological gamblers, females were more likely to be single compared to the males and less likely to be regularly employed (Taveres, Zilberman, Beites, & Gentil, 2001). Women are generally older than men when they start gambling and their gambling trajectories are different: Male problem gamblers outnumber females up to age 34; the gender difference evens out between the ages of 35 and 44; in the 45-64 age range, women problem gamblers outnumber men and after age 65, the gender disparity levels out again (McLaughlin, 2000). Female problem gambling is also thought to progress at a faster rate than is the case for male gamblers (Lorenz, 1987).

  A recent study (Breen & Zimmerman, 2002) shows that problem gamblers, whose preferred format is electronic gambling machines, progress much quicker into the disorder than do problem gamblers who prefer gambling formats other than machines, and that gender does not factor into the speed of this progression. Another prominent gambling-related gender difference is that women are more likely than men to report gambling to escape overwhelming worldly cares and anxieties (Getty, Watson & Frisch, 2000).

  While gender differences in gambling patterns and behaviors have been duly noted in prior studies, there is no widely accepted explanation that accounts for this variance. Attempting to fill this void, Natasha Dow Schull (2002) conducted a ground breaking qualitative study of video poker addicted mothers that explored the connection between excessive machine gambling and the relational obligations women experience at home and at work. Dow Schull's work departs sharply from prior research on the subject, in that she does not assume that females naturally or instinctively approach gambling differently than males do. Indeed, Dow Schull believes that social and technological factors best explain gender differences in gambling behavior; that is, some women experiencing anxiety in trying to live up to societal expectations of the "ideal mother" redirect their caretaking and nurturing energies away from "child, family, home, and work to the machine—exclusively and totally" (p 19). Electronic gambling machines are used as the escape vehicle of choice because they "have the capacity to deliver a certain kind of relief, to excuse women from relating—to others, to themselves, to the world" (p 20). Dow Schull sees machine manufacturers as being complicit in addicting women gamblers, because their technologies intentionally exploit a vulnerable population.

Age is associated with gambling in general, and electronic machine gambling specifically, in the following ways: (1) Gambling activity is inversely proportional to age. That is, people are less likely to gamble as they get older, and the lowest adult age group (19-24) is at the greatest risk for developing gambling problems; whereas, older age groups (60+) are less likely to develop gambling problems (Smith & Wynne, 2002). (2) Age and gambling involvement interact with variables such as preferred gambling format, gender, marital status, education level and occupational status (Wynne Resources, 1998; Smith & Wynne, 2002). (3) In most countries adolescents rarely play gambling machines because they are in age restricted establishments; a notable exception is England, where adolescent "fruit machine" gambling is legal and considered to be a high risk activity for this age group (Fisher, 1993; Griffiths; 1995; Yeoman & Griffiths, 1996). (4) As noted earlier in this section, a bell curve best describes the age range that women are most vulnerable to a gambling machine addiction (i.e. less likely up to age 34, increasing likelihood to age 44, highest likelihood between 45 and 64, and a significant drop-off after age 65 (McLaughlin, 2000).

Previous studies on Alberta populations have shown ethnicity to be an important predictor of problem gambling behavior; most notably, that aboriginal gamblers are significantly more at risk for developing problems than are gamblers from other ethnic backgrounds (Smith & Wynne, 2002; Hewitt & Auger, 1995).

A study profiling 3,000 gaming machine players in Sydney Australia clubs (Hing & Breen, 2002) showed that in terms of socio-demographic characteristics, poker machine players were more likely than non-poker machine players to:

- be between 18 and 34 years of age;
- be unmarried or in common-law relationships;
- be tradespersons, clerks, salespersons, personal service workers, or laborers;

- earn a gross personal annual income of between $8,001 and $12,000 or between $12,001 and $40,000.
- be first or second generation immigrants from the United Kingdom, New Zealand and the Pacific Islands, South-East Asia, Eastern Europe and Western Europe.

Also noteworthy in the Hing and Breen (2002) study is the finding that poker machine players, more so than non-players, favored passive forms of leisure such as indoor sports, attending sporting events and going out for dinner.

Another Australian-based study examined the demographic characteristics of electronic gambling machine players (N=335) recruited from gambling venues in metropolitan Melbourne (Kweitel & Allen, 2003). Of the 19% of the sample found to be probable pathological gamblers according to SOGS, significantly related demographic variables included gender, age, marital status and religion. The profile of the pathological EGM player in this study was a single, under the age of 45, male and possibly of the Greek Orthodox faith. Demographic variables found not significantly related to pathological EGM play in this study were country of birth, education, occupation, and income.

## 2.5 VLT Harm Reduction Features

In recent years the terms "harm reduction" or "harm minimization" have been used by governments and community health organizations to describe strategies or policies aimed at moderating the deleterious health, social and economic consequences of various activities without necessarily demanding abstinence. Initially, this approach was tried with drug and alcohol abusers and later applied to problem gambling (Volberg, 2001). In a gambling context, examples of harm reduction measures employed include: (1) restrictions on age, alcohol consumption, hours of operation, bet size, advertising, number of gambling locations in a jurisdiction, and number of opportunities in a gambling venue; (2) education in the form of warnings on machines and problem gambling modules in school curricula; (3) interventions targeting high-risk groups such as self-exclusion programs, problem gambling awareness programs for gambling industry employees and ministering to problem gamblers in gambling venues; and (4) more recently, altering the structural design of electronic gambling machines. All of these efforts are designed to reduce excessive gambling by helping gamblers exert control over themselves and the gambling situation. The harm reduction movement has triggered studies on electronic gambling machines aimed at identifying the presumed addictive properties of the machines, suggesting machine modifications that devitalize these addictive properties, and testing the efficacy of the modifications. This research is summarized below.

Two studies have examined the efficacy of reconfiguring electronic gambling machines to protect consumers; one in Australia (Blaszczynski, Sharpe & Walker, 2001) and one in Nova Scotia (Focal Research, 2002). The Blaszczynski et al. study was commissioned by the Australian Gaming Industry Operators who sought an independent and impartial evaluation of the New South Wales Liquor Administration Board's proposed electronic gaming machine harm reduction measures. In the introduction, Blaszczynski et al. note that to be successful, gambling-related harm reduction strategies should achieve the following objectives:

- Reduce both the incidence and prevalence of problem gambling.
- Minimize the dangers of continuing to gamble at a problematic level (i.e. reduce the time and money gamblers spend).
- There should not be any unintended negative effects.
- Ideally, the harm reduction measures should not detract from the enjoyment of recreational gamblers; however, this goal is of lesser importance than protecting against and reducing the harms associated with problem gambling (p. 19).

The Blaszczynski et al. report studied the impact of three machine modifications (the reconfiguration and/or removal of bill acceptors, reducing the speed of reel spins, and reducing the maximum wager from $10 to $1); in two locations (hotels and clubs); on recreational and problem gamblers; from the standpoint of (1) player satisfaction, (2) pattern of play, and (3) player expenditures. In addition, the study reviewed the literature on gambling-related harm minimization measures and used problem gambler focus groups to assess their views on the proposed changes. Listed below are key findings from the Blaszczynski et al. study.

- Most participants (75%) failed to notice any machine modifications; those who did mentioned speed of reel spin.
- Players expressed a small but significant preference for machines with faster reel spins.
- There were no significant differences between social and problem gamblers in their patterns of play on machines without bill acceptors.
- Slowing the speed of reel spins may help a small portion of problem gamblers.
- Increased bet size was associated with problem gambling.
- Reducing the maximum bet size to $1 is likely an effective way of reducing the losses of problem gamblers and the severity of the consequences of problem gambling.
- Interviews with problem gamblers showed that bill accepting machines, in combination with easy accessibility to ATMs, makes it difficult for problem gamblers to exercise self-control.
- Problem gamblers reported being attracted to electronic gambling machines in general and suggested that the "free spin" feature on the machines, and the "near miss" phenomenon were key factors contributing to persistence of play.

The Nova Scotia study (Focal Research, 2002) was evaluational, in that the aim was to assess the effectiveness of certain VLT "responsible gaming features" (RGFs) already in use throughout the province. Using both qualitative (focus groups) and quantitative (survey questionnaires) methods the following issues were addressed:

- Potential factors impacting play of the new RGF terminals.
- Player perceptions of the utility of the RGFs.
- How players use and interact with the new machines and RGFs.
- Barriers or "myths" that develop or become associated with the RGFs (p. 1-8).

The main findings of the Nova Scotia VLT responsible gaming features study include:

- Problem gamblers exhibit characteristics and behaviors that set them apart from non-problem gamblers such as losing track of time and money spent, chasing losses, frequency of play and time spent per VLT session. Given these differences the researchers suggested a need to strengthen the current RGFs.
- Specific recommendations with respect to the four RGFs were:

    1. On-Screen Permanent Clock--make the on-screen clock more prominent and visible so that players are aware of the passing time.
    2. Cash Display--retain the cash display feature and gradually eliminate the credit-based betting system.
    3. Pop-up Reminders--retain pop-up messages regarding time spent playing and cash out reminders, make players respond to the pop-up messages before play continues and vary the content and appearance of the messages to avoid habitual responses.
    4. Mandatory Cash out Requirement--retain the mandatory cash out after 150 minutes of play.

Though not a research focus in this study, the authors found that the bill acceptor feature on VLTs was linked to the development and maintenance of problem gambling behavior.

A laboratory study (Loba, Stewart, Klein & Blackburn, 2001) that examined the effects of various manipulations of standard VLT features on both pathological and non-pathological gamblers (n=60) yielded the following results:

- Sensory manipulations (i.e., fast speed/sound or slow speed/no sound) produced the most significant reaction differences.
- Sensory features manipulation (decreasing speed, turning off sound) decreased enjoyment, excitement and tension levels of pathological gamblers compared to non-pathological gamblers.
- Pathological gamblers, more so than non-pathological gamblers, found the money counter display helped them stop gambling.
- In general, pathological gamblers found it more difficult to stop playing than non-pathological gamblers at control settings and fast speed with sound effects.

A preliminary study on how interactive messages on VLTs affect persistence in playing the machines showed that certain messages can modify player behavior

(Ladouceur & Sevigny, 2003). VLT players were randomly assigned to one of three experimental conditions: (1) exposure to regular messages related to the notion of chance and the illusion of control in gambling; (2) regular play stoppages; and (3) uninterrupted play. Key findings were that VLT gamblers exposed both to messages and breaks in play were significantly more likely to play fewer games than those subjects who played without interruption. The authors concluded that these two interventions could be effective with both non-problem and at-risk VLT gamblers.

Dickerson (2003) questioned whether any structural harm reduction strategy used in conjunction with electronic machine gambling can be effective. His rationale was that continuous gambling formats encourage loss of control even among recreational players, and that it is impossible to blunt the EGM features that cause impaired control without reducing the entertainment value of the machines. Dickerson surmised that player self-control diminishes as a VLT session progresses; therefore, rather than reconfiguring electronic gambling machines to safeguard at-risk players, he advocates consumer protection legislation that would see the point-of-sale for EGMs removed from the gaming floor. In the scenario described by Dickerson, players would use a "smart card" to purchase machine playing time—in other words, make a pre-commitment, away from the seductive lure of the machine, which conforms to one's time and cash availability.

A South Australian Centre for Economic Studies report (2001) cautioned that quick fix solutions such as machine modifications and smart cards may have unintended consequences because the impact that these "user interface" conversions will have on problem gambling is still unknown.

### 2.6 Proportion of VLT Revenues Derived From Problem Gamblers

Estimates of the proportion of revenues derived from problem gamblers are essential to the development of sound gambling public policy (Volberg, Moore, Christiansen, Cummings, and Banks, 1998). A criticism raised about VLT gambling is that problem gamblers contribute a disproportionate share to the VLT revenue pot. When VLTs were introduced there were no precise measures to indicate that this was, or was not, the case. Subsequent studies in various jurisdictions have shown that problem gambler losses are much higher than other gambling sub-types for all gambling formats, but particularly so for VLTs. For example, the most comprehensive study to date on VLT gambling in Canada was conducted in Nova Scotia (Nova Scotia Annual Gaming Report, 1998-99, Vol. II). Two noteworthy findings from this study include: (1) VLT players form a small, but intense, segment of the gambling population; and (2) an estimated 50% of Nova Scotia VLT revenue comes from only 4% of the VLT players. An earlier study of Manitoba VLT players showed them to be more frequent and longer playing gamblers than those who preferred other gambling formats and at a higher risk for developing a gambling addiction than were other gamblers (Gfellner, 1994). Similar findings have been reported in other jurisdictions; for example, Costello and Millar (2000) commenting on the Australia scene, noted that, "at least 42% of poker machine expenditure is by people with gambling problems" (p. 216).

Lesieur (1997) analyzed existing survey data from three provinces and four states where both expenditure and problem gambling data were reported and Alberta was one of the jurisdictions included in the study. His interpretation of the Alberta data showed that (1) problem gamblers contributed 32.3% of gambling revenues when all games were considered, and (2) problem gamblers contributed 47% of video machine revenues. In comparing gambler sub-types on average monthly VLT expenditures, the most recent Alberta-based gambling and problem gambling prevalence study (Smith & Wynne, 2002) showed non-problem gamblers spent $10; low-risk gamblers $20; moderate-risk gamblers $100; and problem gamblers $700 monthly on VLTs.

Doughney (2002a) labeled the Australian state of Victoria's poker machine revenues "socioeconomic banditry" because there is no equality of risk—the government is guaranteed a profit. In fact, Doughney said it is unfair to even speak of poker machine play as gambling: "there is no gamble when the 'house' bears no risk and sets its winnings by computer program" (p 153).

On a cautionary note, Williams and Wood (2002) suggested that estimates of problem gambler expenditures may be flawed to the extent that (1) determining problem gambling prevalence rates, in itself, is not an exact science; (2) there are methodological limitations in accurately assessing self-reported gambling expenditures; and (3) the percentage of revenues contributed by problem gamblers varies depending on gambling format and jurisdiction.

## 2.7 VLT Community Impacts

VLTs have been highly profitable for the eight Canadian provinces that sanction them; for example, in Alberta the portion of total revenue from gambling sources in 1992, the year that VLTs came on the scene, was 1.1%. A decade later this portion increased nearly six-fold to 6.3%, almost entirely due to ever increasing electronic gambling machine proceeds. The burgeoning gambling revenue was no doubt a factor in helping pay down the provincial debt and keeping Alberta's provincial tax burden the lowest in the country. According to Basham and White (2002 p. 72), "without the presence of gambling, the Alberta government would have had to raise taxes by $214 per person to maintain the same level of service." Associated economic benefits derived from VLT gambling relate to employment, tourism and funding for cultural and non-profit organizations.

Though difficult to quantify, there can also be social benefits to VLT gambling in the form of a recreational outlet that is voluntary and offers entertainment, excitement and stimulation as a counter to the drudgery of one's daily routine. There is also the possibility that players will win money, and if not, at least be supporting worthwhile causes.

Balanced against these economic and social benefits are the also difficult to quantify costs mentioned earlier, such as family breakdown, bankruptcy, job loss, suicide and higher crime rates associated mainly with the small percentage of participants who lose control over their gambling behavior. The up and downsides of widespread legal gambling in general, and electronic machine gambling in particular, elicit the oft-heard question: "Do the benefits of legalized gambling outweigh the costs" (Basham & White, 2002)? This question was the theme of the 2000 "Whistler Symposium" which brought together internationally recognized gambling scholars and gambling policy makers; the end result of which was a lack of consensus over what constitutes gambling costs and benefits and how to accurately measure them (Wynne & Anielski, 2001).

A new study that will hopefully inform the gambling cost/benefit debate was commissioned by the Australian state of Victoria's Gambling Research Panel and undertaken by the South Australian Centre for Economic Studies (2003). This is a three-stage study whose overall purpose is to compare regions and communities in Western Australia, where poker machines do not exist, with matched regions and communities in Victoria, a state where poker machines are plentiful. So far, only stage one has been completed (identifying likely impacts); ultimately the selected regions in each state will be matched according to a broad range of demographic, geographic and economic indicators and compared on key socio-economic characteristics.

Based on a literature review, trend analysis of poker machine distribution and expenditure figures, as well as consultations with local government and business leaders, the research team chose the following benchmarks for comparison:

Negative Impacts

Economic--financial problems affecting gamblers, family members and society as a whole; work performance; unemployment; and regional productivity.
Impacts on the gambler--health; depression; and suicide.
Impacts on others--family breakdown; impacts on the children of gamblers; violence; and crime.

Positive Impacts

Consumer surplus--recreational outlet; enjoyment from playing; and chance to win money.
Community benefits--tourism; facility enhancement; and women empowered to go out alone.

Specific indicators for these benchmarks have yet to be selected; however, numerous possibilities are outlined in the first report.

### 2.7.1 Gambling Machine Distribution and Economic Consequences

Recent Australian-based studies have examined patterns of electronic gambling machine distribution, for the purpose of identifying dense concentrations of EGMs and heavy expenditures in relation to host community demographic characteristics such as median income and levels of socioeconomic disadvantage (Tremayne, 2000). This line of inquiry was prompted by the Australian Productivity Commission report (1999) which called for research not only on the scale of gambling-related social costs, but also the concentration of these costs by region or socioeconomic factors. Thus, the thrust of this research has been to ascertain the impact of EGMs on national and regional economies. Commenting on Australia as a whole, the Productivity Commission (1999) found evidence of (1) poker machines concentrated in lower socioeconomic areas, (2) an inverse relationship between a region's income and the total amount spent on poker machines, and (3) a significant negative relationship between regional median weekly income and annual average expenditure on poker machines.

An investigation into poker machine gambling in the state of Victoria (Livingstone, 2001) found that the Melbourne suburb of Maribyrnong had the highest concentration of poker machines in the state and the highest annual per capita expenditure on the machines ($1,144, compared to the state average of $602). This was a significant finding because according to a national socioeconomic index, Maribyrnong was "the most socioeconomically disadvantaged local area in Australia" (p 49). Further analysis showed that the greater the comparative socioeconomic disadvantage of a municipality, the more likely it was to have an over-abundance of poker machines; and vice versa; that is, the more affluent the municipality the greater the scarcity of poker machines. On the basis of these findings Livingstone concluded that:

- "Poker machines in Victoria are strongly marketed and located close to the class of persons formerly known as the proletariat" (p 53).
- Poker machine revenue is "very regressive," as individuals in socially disadvantaged communities contribute up to seven times more to poker machine revenue than do people in upscale areas.
- Some individuals are heavy losers, and the Australian gambling industry applies the 80:20 ratio to this issue; that is, 20% of the gamblers contribute 80% of the revenue.
- Poker machine policy in Victoria perpetuates social class divisions and amounts to a reverse Robin Hood scenario; "robbing the poor to pay the rich" (p 55). The basis for his conclusion is that poker machine revenue in Victoria has been used largely to retire debt, cut business taxes and finance major projects in more affluent areas.

Corroborating the above study is research by Marshall and Baker (2002) detailing the socioeconomic distribution of EGMs in Melbourne (an immature EGM market) and comparing the findings to Sydney (a mature EGM market). The authors concluded that similar findings in both cities shows that EGM distribution transcends differences in historical and legislative environments; in other words, market forces have produced a higher concentration of EGMs in lower socioeconomic districts, which are areas considered more likely to contain problem gambling residents.

Other Australian studies concur with the finding that poker machines are a highly regressive form of taxation (Smith, 1999; Productivity Commission, 1999); for example, the Productivity Commission report showed that gambling machine expenditure as a proportion of household income is higher for low income households. To illustrate, households with an annual income of less than $15,000 put 3.6% of their income into gambling machines compared to 0.6% for households with an income of $35-40,000. Smith (1999) contended that governments' reliance on regressive gambling taxes is a ploy to avoid or delay introducing more progressive measures such as income taxes, which is a political minefield. Furthermore, the decision to pursue regressive gambling taxation sources may validate the widely held perception that, because gambling expenditures are voluntary, they are a fair and painless form of taxation.

Mizerski, et al, (2001) suggested that the 80:20 rule of thumb for machine gambling revenue generation is no cause for alarm. The authors argued that the 80:20 rule, whereby a few buyers account for a large proportion of sales, is a well-known and accepted phenomenon in marketing consumer goods; therefore, the unequal distribution of users accounting for most of the EGM play should be viewed as "normal and expected" (p. 281).

An in-depth look at the impact of electronic gambling machines on local economies conducted by the South Australia Centre for Economic Studies (2001) produced the following observations:

- Responses by government and industry to the issue of problem gambling have lagged behind the explosive growth of the EGM industry.
- The three most important demographic factors in the link between lower income and higher poker machine expenditure are higher unemployment as a proportion of adults, higher proportions of aboriginals in the population and high proportions of private dwellings rented from the Housing Trust.
- National problem gambling prevalence data does not reflect regional differences; as a result, there is a need for "regional risk profiles." A high-risk profile could result in regional caps on poker machines or a reduction in the number of machines allowed per venue.
- The need for a formal mechanism to direct more poker machine revenue back to the community where it originated.
- The need for state governments to provide annual "gaming reports" to municipalities that would include items such as number of poker machine venues, number of machines, losses per adult, and so forth.
- The fact that poker machine revenues are heavily dependent on problem gamblers raises questions about the sustainability of the EGM industry. For example: "How can South Australian problem gamblers who lose $10,000 a year on average continue to play before draining their assets?" Given the inevitable attrition of problem gamblers, how enduring are state poker machine revenues?

Tied into poker machine distribution outcomes is the fact that in most jurisdictions, only a small portion of the revenues returns to the community of origin (Curtis & Wilson, 2002).

### 2.7.2 VLT Regulatory Deficiencies and Community Impacts

Outlined in this section are three cross-cultural examples of what can happen when legalized VLT gambling is not carefully planned nor tightly regulated in a jurisdiction.

South Carolina: In addressing the South Carolina scene, Bridwell and Quinn (2002) chronicled the political, legal, constitutional, monetary, philosophical, and social issues associated with the state's seven-year experience with unlimited and unregulated VLT gambling. In a relatively short time span, South Carolina was transformed from a prohibitionist to a wide open electronic gambling state and back again. At the apex of the VLT frenzy, upwards of 36,000 VLTs (one for every 100 South Carolina residents, including children) were deployed throughout the state in over 7,000 public venues such as convenience stores, bars, truck stops and "video malls" (clusters of 25-100 video poker machines located in double-wide trailers); and "profits and revenues climbed an average of twenty percent per year, reaching a total of over three billion dollars in 1999" (p. 583). The rapid acceleration of VLT gambling in South Carolina was facilitated through loopholes in the state law and lax state oversight of gambling regulations, coupled with a powerful gambling industry lobby that was able to "neutralize the political and legal systems of the state" (p. 584). David Plotz, (1999a, p. 65) who covered the story for *Harper's Magazine* summarized the debacle as follows:

> It is a tale of how, in almost no time at all, a bunch of gas-station owners, jukebox operators, and barkeeps used lawsuits, strong-arm lobbying, dead-of-the-night legislation, and just plain deception to transform a small-time illegal gambling business into a multi-billion-dollar legal one; how these folks fought to increase regulation and taxation; and how, in the process of all this, they resurrected the state Democratic Party, battered the state legislature, wiggled out of campaign-finance restrictions, made common cause with white supremacists, and in a remarkable and demoralizing 1998 election, deposed one governor and bought themselves a new one.

The situation with VLTs in South Carolina became so impolitic that it was ridiculed as being a return to the "old wild west" (Shiflett, 1999, p 41); South Carolina did not tax gambling revenues, forbid children to play the machines or ban felons from owning them (Plotz, 1999b). Shortly after the 1998 governor's election it became apparent to the electorate that "the staggering overnight wealth of the video operators had translated into political power" (p 592). Concerned citizens formed broadly-based anti-gambling coalitions that persuaded the legislature to enact statutes to curb the video gambling industry. At a 1999 special session of the South Carolina legislature, a new law replacing all prior gambling laws, was passed, ultimately resulting in the outright banning of video gambling in the state on the first of July, 2000. According to the Columbia South

Carolina newspaper *The State*, this was the largest shutdown of legalized gambling in U.S. history (Cimino, 2001).

Bridwell and Quinn (2002) noted the following changes to the South Carolina gambling landscape since legal video gambling was terminated in 2000:

- Within ninety days, the number of active Gambler's Anonymous groups in the state fell from a high of 32 to 16 and the membership in the active groups diminished from an average of forty members to only one or two.
- As of Jan. 1, 2003 only 11 GA groups were active in the state.
- "The most active gambler's hotline in the state reported the number of calls they were receiving dropped from over 200 a month to near zero" (p. 718).

Victoria, Australia: Australian economist, James Doughney's (2002b) book *The Poker Machine State* informs the poker machine debate by alerting readers to "incomplete, misleading or false arguments in ethics, economics and governance" (p 11) espoused by government and the gambling industry in the Australian state of Victoria. Doughney explicates what he considers to be the main societal harms created by video poker gambling in Victoria, namely: (1) the sheer size of players' monetary losses; (2) the fact that electronic gambling machines are concentrated in lower socio-economic status communities, thus causing losses to fall disproportionately on citizens who can ill afford them; and (3) the general human and social harms known to be associated with excessive gambling losses (e.g. domestic breakup/violence, bankruptcy, criminal activity, suicide, etc.). Compounding these harms, according to Doughney (2002b), is state dependency on poker machine revenues which hinders governments from formulating tough policies to address the aforementioned harms.

In contrast to the societal harms noted above, Doughney used "well-being" as a core concept; well-being referring to "what is good for us as humans living in human society" (p. 37). A key constituent of well-being is a human and social state amenable to human flourishing—the freedom and encouragement to optimize one's potential. In Doughney's view, the harms engendered by the poker machine industry are antithetic to communal well-being and provokes the pivotal question of Doughney's thesis; that is, given governments' obligation to try and improve citizens' well-being, is it ethical for the government-gambling industry partnership to harm heavy, problem and pathological gamblers? While eschewing a prohibitionist stance, Doughney asserted that governments have both the capacity and responsibility to redress damages created by video poker machine gambling. Informed by the philosophical arguments of Aquinas, Mills and Keynes, Doughney (2002b, pp 166-171) proposed that governments adopt the following stricter standards to ameliorate the suffering caused by video poker machine gambling:

- Reduce by one-half the number of poker machines in the state of Victoria and further reduce the numbers of machines in districts that have lower than average socio-economic rankings.

- Impose a maximum municipal density of 3.75 machines per one thousand consumers.
- Mandate hourly machine "shut downs" to counteract extended play.
- Incorporate slower spin speeds.
- Increase the average payout rate to a minimum of 95% and decrease the profit margin of machine gambling from the present 30% to a maximum of 13%.
- Increase the size of the average payout and decrease its frequency.
- Eliminate all venue-related factors that may facilitate problem gambling such as smoking, bill acceptors, available ATMs, and advertising.
- Ensure that all video poker machine practices, from machine programming and psychological manipulation, to finances, be open to public scrutiny and control.

Quebec: Montreal Gazette investigative reporter Alexander Norris (2002) scrutinized VLT gambling in Quebec and raised the following concerns:

- The Quebec government's own contradictory policies helped gangsters gain a foothold in the VLT industry. Individuals with a history of criminal convictions for gambling offences had hidden ownership links to a Quebec City VLT emporium.
- Politically connected "Quebec VLT Kings" emerged. These are entrepreneurs who make huge profits thanks to the large number of video-lottery licenses they have been granted by Quebec's politically appointed gaming board (at the time of the investigation Quebec's gaming board had 19 members, which included three defeated PQ candidates, former aides to PQ politicians and PQ party officials). One so-called VLT King has 55 VLTs in four establishments which netted $1.3 million in Loto-Quebec commissions the previous year. Up until May 31, 2001, Quebec VLT retailers received a commission of 30% of net profits from their machines; this was trimmed to 26%, still 11% higher than what Alberta retailers receive.
- Currently there are more than 14,000 VLTs operating in Quebec. Initially, there was to be a maximum of five VLTs per establishment; however, the rule was dropped in 1995. One Quebec establishment has 35 VLTs.
- Industry spokespersons have noted that large VLT venues have become magnets for compulsive gamblers, which, in turn has sparked criminal activity—especially loan sharking.
- The investigation found VLTs to be far more accessible in poor neighborhoods than in wealthier districts.

The purpose of documenting these cross-cultural scenarios is to show what can happen in jurisdictions where there is not strict oversight of VLT gambling and when the economic imperative overrides social responsibility concerns.

## 2.8 Summary

In this chapter we reviewed the scholarly research on electronic machine gambling. Information on this subject was scanty up until the early 1990s, when a few academics began studying the design and construction of electronic gambling machines in an attempt to discern why problem gamblers are drawn to them. In the late 1990s the research focus changed to documenting electronic machine gambling patterns (i.e., who plays, why they play, how often and how long they play, and player expenditures). Recently there have been a spate of studies on the impacts of electronic machine gambling that include the distribution and density of machines in communities; how machine gambling is/is not, regulated; the economics of machine gambling; development and assessment of machine harm reduction features; and case studies showing how electronic gambling machine interests have manipulated and neutralized governments.

Much of the recent scholarly information on electronic machine gambling impacts emanates from Australia, which is hardly surprising given that there are 185,000 machines in the country (about one-fifth of the comparable machines in the world) spread out in pubs, clubs and casinos across all States and Territories except Western Australia (Banks, 2002). Australian researchers have led the way in challenging governments to review their reliance on machine gambling profits and to reestablish their mandated role of community guardians (Costello & Millar, 2000).

The academic literature on electronic machine gambling is, with few exceptions, faultfinding. While there is unanimity about the superior revenue generating capacity of electronic gambling machines for both the state and gambling venue proprietors, there is also concurrence on the distress these machines can visit on the public. Video gambling has been variously described as "the most destructive, psychologically potent and addictive form of gambling invented thus far" (Bridwell & Quinn, 2002, p 719) and "the most virulent and addictive form of gambling yet devised" (Hunter, 1990). The rapid growth of research on electronic gambling machines has, at the very least, alerted us to the problems associated with this gambling format. Along with this recognition are signs of a gradual acceptance by governments (most notably in several Australian states, and to a lesser extent, two Canadian provinces—Nova Scotia and Alberta) that existing policies and practices are overloaded toward revenue generation and deficient in terms of social responsibility.

The dilemma faced by legislators is that the most lucrative gambling format (electronic machine gambling) is also perceived as the most hazardous to citizens. As described by Hayward and Kliger, (2002), government plays a contradictory role, in that it has a social policy interest in reducing the hardships associated with gambling losses, but also an economic interest in seeing that gambling revenues continue to grow. This leaves the state in an awkward position; that is, by putting social policy considerations to the fore, it loses money; whereas, if financial considerations take precedence, it jeopardizes citizens' well-being. The consensus amongst gambling studies researchers is that the onus is on governments to find a humane way out of this predicament; that is, balance the unparalleled revenue producing capacity of the machines against their potential to effect social and economic damage.

# CHAPTER THREE
# RESEARCH DESIGN AND METHODOLOGY

## 3.1 Purpose, Goals and Research Questions

The purpose of this project was to examine video lottery terminal (VLT) gambling in the Province of Alberta to determine the social, economic, and political forces that precipitated its evolutionary growth; ascertain the profile of VLT-playing gamblers and their gambling expenditures; and to explore the pattern of VLT distribution and revenue generation by provincial region.

From this purpose, the following three general goals and corresponding six research questions were used to guide the study:

Research Goal #1 – To chronicle the evolution of video lottery terminal (VLT) gambling in Alberta.

Research question #1 - What is the history of VLT gambling in Alberta?
Research question #2 - What government policies and regulations have guided VLT gambling in Alberta?

Research Goal #2 – To describe the characteristics and behavior of VLT gamblers and problem gamblers.

Research question #3 - What is the demographic profile of VLT gambler sub-types (i.e. non-problem, low-risk, moderate-risk, problem gamblers)?
Research question #4 - What are the problem behaviors and consequences experienced by VLT gamblers?

Research Goal #3 – To describe the amount and distribution of expenditures on VLT gambling in Alberta.

Research question #5 - Where are the VLTs distributed in communities throughout Alberta?
Research question #6 – What are the VLT revenue and expenditure patterns for Alberta communities?

## 3.2 Methodology

The data required to address the six research questions included (a) documentary data (i.e., reports, communications documents, newspaper accounts, government documents re: policies and regulations, Alberta Hansard); (b) statistical survey data gathered from VLT players; and (c) Alberta government information on VLT distribution and revenues/expenditures.

### 3.2.1 Data Collection

**Documentary data**. A main goal of the study was to describe the evolution of video lottery terminal gambling in Alberta. VLTs were first introduced in the province in 1991 on a trial basis during Edmonton Klondike Days and the Calgary Stampede. This early trial was deemed successful, and the government launched Alberta's VLT program in March 1992. Since this launch more than a decade ago, there have been numerous significant changes to the provincial VLT program, including a steady increase in the number of machines until they were capped at 6,000 in 1995; changes in licensure and regulations; and changes in gaming policies.

To track and describe these changes in the provincial VLT program, the researchers reviewed numerous documents including the following main sources:

- 1994 Lotteries Review Committee reports, discussion papers and petitions.
- 1998 Alberta Lotteries and Gaming Summit documents (group reports, final report).
- 1999 Gaming Licensing Policy Review documents (key issues, research, final recommendations).
- Alberta Hansard (verbatim account of legislative proceedings) from 1991 to present.
- Alberta MLA opposition private member Bills calling for the elimination of VLTs.
- Canada West Foundation gambling reports
- Alberta gambling/problem gambling prevalence studies (Wynne, Smith and Volberg, 1994; Wynne Resources, 1998; Smith and Wynne, 2002).

The researchers procured written copies of these and other related reports, many of which they had in their personal files. The Alberta Hansard was electronically searched for occurrences of keywords including, "gambling," "video lottery terminals," "casinos," "lotteries," and "horse racing."

**Field interviews.** During a 2-month period from July 1 to August 31, 2002 trained interviewers conducted VLT patron-intercept surveys in bars/lounges in communities throughout Alberta. Table 4 shows (a) the cities/towns and gambling venues where VLT patron intercept surveys were conducted; and (b) the total intercepts attempted, with corresponding completion and refusal percentages.

Interviewers approached bar patrons who were playing the VLTs, informed them of the study objectives, and asked them to complete a 15-minute interview. The interviewer then recorded the VLT player's responses on a paper/pencil questionnaire and, back at the office, questionnaire data were entered into an SPSS v11.5 statistical database for subsequent analysis. While in the bars, interviewers made every effort to employ quota sampling techniques to ensure the sample was balanced for gender, age, and ethnicity

## TABLE 4
## VLT Venues by Region and Number of Patron Intercepts

| Cities/Town by Region | Total Venues | Total Patron Intercepts | | | Completed Interviews | | | Refusals | | | % of Completed Interviews |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | Total | Male | Female | Total | Male | Female | Total | |
| **Edmonton** | | | | | | | | | | | |
| Calmar | 2 | 10 | 5 | 15 | 2 | 1 | 3 | 8 | 4 | 12 | 20.0% |
| Edmonton | 16 | 52 | 34 | 86 | 16 | 17 | 33 | 36 | 17 | 53 | 38.4% |
| Fort Saskatchewan | 1 | 6 | 3 | 9 | 3 | 0 | 3 | 3 | 3 | 6 | 33.3% |
| Leduc | 2 | 8 | 6 | 14 | 2 | 1 | 3 | 6 | 5 | 11 | 21.4% |
| Nisku | 1 | 5 | 3 | 8 | 1 | 1 | 2 | 4 | 2 | 6 | 25.0% |
| Sherwood Park | 2 | 10 | 6 | 16 | 1 | 1 | 2 | 9 | 5 | 14 | 12.5% |
| Spruce Grove | 2 | 13 | 8 | 21 | 2 | 3 | 5 | 11 | 5 | 16 | 23.8% |
| St. Albert | 5 | 12 | 3 | 15 | 5 | 0 | 5 | 7 | 3 | 10 | 33.3% |
| **Sub Total** | **31** | **116** | **68** | **184** | **32** | **24** | **56** | **84** | **44** | **128** | **30.4%** |
| **Calgary** | | | | | | | | | | | |
| Airdrie | 1 | 5 | 3 | 8 | 2 | 2 | 4 | 3 | 1 | 4 | 50.0% |
| Calgary | 14 | 42 | 26 | 68 | 20 | 16 | 36 | 22 | 10 | 32 | 52.9% |
| **Sub Total** | **15** | **47** | **29** | **76** | **22** | **18** | **40** | **25** | **11** | **36** | **52.6%** |
| **Northern Alberta** | | | | | | | | | | | |
| Bonnyville | 1 | 4 | 3 | 7 | 2 | 3 | 5 | 2 | 0 | 2 | 71.4% |
| Fort McMurray | 2 | 9 | 12 | 21 | 6 | 4 | 10 | 3 | 8 | 11 | 47.6% |
| Grande Prairie | 6 | 17 | 11 | 28 | 5 | 7 | 12 | 12 | 4 | 16 | 42.9% |
| High Level | 2 | 4 | 3 | 7 | 3 | 2 | 5 | 1 | 1 | 2 | 71.4% |
| Lac LaBiche | 1 | 5 | 6 | 11 | 4 | 4 | 8 | 1 | 2 | 3 | 72.7% |
| Lloydminster | 4 | 5 | 9 | 14 | 2 | 3 | 5 | 3 | 6 | 9 | 35.7% |
| Peace River | 3 | 3 | 6 | 9 | 1 | 4 | 5 | 2 | 2 | 4 | 55.6% |
| Slave Lake | 4 | 3 | 6 | 9 | 2 | 5 | 7 | 1 | 1 | 2 | 77.8% |
| **Sub Total** | **23** | **50** | **56** | **106** | **25** | **32** | **57** | **25** | **24** | **49** | **53.8%** |
| **Southern Alberta** | | | | | | | | | | | |
| Okotoks | 2 | 6 | 4 | 10 | 2 | 3 | 5 | 4 | 1 | 5 | 50.0% |
| Blairmore | 2 | 6 | 6 | 12 | 5 | 1 | 6 | 1 | 5 | 6 | 50.0% |
| Brooks | 2 | 7 | 9 | 16 | 4 | 1 | 5 | 3 | 8 | 11 | 31.3% |
| Cochrane | 3 | 5 | 5 | 10 | 4 | 1 | 5 | 1 | 4 | 5 | 50.0% |
| Hanna | 1 | 7 | 4 | 11 | 3 | 2 | 5 | 4 | 2 | 6 | 45.5% |
| Lethbridge | 3 | 5 | 6 | 11 | 3 | 3 | 6 | 2 | 3 | 5 | 54.5% |
| Medicine Hat | 1 | 6 | 9 | 15 | 2 | 2 | 4 | 4 | 7 | 11 | 26.7% |
| Pincher Creek | 1 | 8 | 4 | 12 | 5 | 1 | 6 | 3 | 3 | 6 | 50.0% |
| Red Deer | 2 | 14 | 5 | 19 | 8 | 3 | 11 | 6 | 2 | 8 | 57.9% |
| **Sub Total** | **17** | **64** | **52** | **116** | **36** | **17** | **53** | **28** | **35** | **63** | **45.7%** |
| **TOTAL** | **86** | **277** | **205** | **482** | **115** | **91** | **206** | **162** | **114** | **276** | **42.7%** |

**Telephone survey.** In 2002, the researchers conducted a prevalence study of adult gambling and problem gambling in the Province of Alberta (Smith and Wynne, 2002). They used the newly developed Canadian Problem Gambling Index (CPGI) (Ferris and Wynne, 2001) to identify the types of gambling activities Albertans participated in, and to discriminate five gambler sub-types (i.e., non-gamblers, non-problem gamblers, low-risk gamblers, moderate-risk gamblers, and problem gamblers). In 2002, these researchers developed an SPSS statistical database (SPSS v11.5) that contained responses from 1,804 study participants. For the present study, a secondary statistical analysis of the original telephone survey dataset was conducted and this included analyzing responses from 242 adult Albertans who self-identified as having played VLTs within the last 12 months.

**Instrumentation.** For the 2002 VLT study, the researchers developed a questionnaire that included the 33-item Canadian Problem Gambling Index (CPGI) (Ferris and Wynne, 2001) and demographic questions (refer to Appendix 1 for the questionnaire). Embedded within the CPGI is the 9-item Problem Gambling Severity Index (PGSI), and PGSI scores (ranging from 0 to 27) are used to identify the following gambler sub-types:

| | |
|---|---|
| Non-problem gambler | (PGSI score = 0) |
| Low-risk gambler | (PGSI score = 1-2) |
| Moderate-risk gambler | (PGSI score = 3-7) |
| Problem gambler | (PGSI score = 8+) |

The questionnaire used for the field interviews in this study was based on the 2002 survey questionnaire, so that results from the two surveys could be directly compared. To this end, the field questionnaire also included the 33-item CPGI and demographic questions; however, it also included questions that explored leisure and recreation pursuits, health status, the impact of VLTs, and government VLT policy.

Interviewers were also asked to count the number of VLTs in the bar/lounge; count the number of VLT players in the establishment upon entry and exit; note the apparent demographic characteristics of VLT players (gender, age, visible minority); and note whether AADAC problem gambling posters, pamphlets and helpline stickers were featured prominently. To aid in collecting these data, a short checklist was developed (Appendix 2).

### 3.3 Data Analysis

Documentary data were content-analyzed to chronicle the evolution of VLT gambling in Alberta and to ascertain the context for many of the government's VLT policy-related decisions. In addition, the academic literature on electronic gambling was reviewed, content-analyzed and discussed where this was pertinent to the study topic. The researchers have endeavored to fairly interpret these data, citing documents, sources and the Alberta Hansard legislative proceedings to tell the story of VLT gambling expansion in the province.

Independent statistical analyses were conducted of the 2002 data set (N=242) and field interview data set (206), respectively. These data sets are essentially two separate surveys of Alberta VLT players; consequently, data from these separate analyses are displayed in each of the tables in the results chapter. The subsequent discussion of each data table explores the similarities and differences gleaned from each data set relative to a specific study variable; bear in mind, this is possible because the questionnaires in each study are virtually identical, with the study variables matched (refer to the appendices). Statistical analyses of both data sets include frequency distributions, cross-tabulations that develop a profile of VLT gamblers and problem gamblers in Alberta and tests for statistically significant correlations. Throughout the data tables, comparisons for study variables are presented for the four PGSI gambler sub-types (i.e., non-problem, low-risk, moderate-risk and problem gamblers).

### 3.4 Limitations

As with all research, this preliminary analysis of video lottery terminal (VLT) gambling in Alberta has limitations that must be acknowledged. First, the analysis relies on two data sets, namely: (a) telephone survey information gathered from adult Albertans in the 2002 provincial gambling/problem gambling prevalence study; and (b) for this study, self-reports from VLT players gathered through face-to-face interviews in bars and lounges throughout Alberta. With respect to the first data set, the limitations evident in the Alberta CPGI prevalence study itself also apply to this research (e.g., higher margin-of-error associated with relatively small Ns for each gambler sub-type, notably problem gamblers; typical bias known to be associated with self-reported data). The second Alberta VLT Study data set also suffers from the statistical limitation of a higher margin-of-error associated with smaller Ns, notably for gambler sub-types including moderate-risk and problem gamblers. Similarly, insofar as the face-to-face interviews also rely on self-reports from VLT patrons, bias associated with these perceptual data must be acknowledged.

The Alberta VLT study may also have a sample bias. Study communities throughout Alberta were not chosen at random; rather, the two largest cities (Edmonton and Calgary, including bedroom communities) were selected, and a perceived balance of large/small communities throughout northern Alberta and southern Alberta, respectively, were chosen. Similarly, within each community, bars/lounges were not selected randomly; rather, purposive choices were made based on the type of establishment (i.e., family restaurant/bar, hotel, neighborhood pub) and location (i.e., residential, light industrial, commercial/downtown). It is conceivable that conducting interviews in alternative communities and bars/lounges would result in slightly different findings.

Finally, the on-site interview data for this study were gathered in July and August of 2002. It is possible that a different two-month time frame may have yielded slightly different results.

# CHAPTER FOUR
# VLT GAMBLING IN ALBERTA

This research explores two unique and similar data sets that profile VLT players in Alberta. The first set of statistical data profiles VLT players identified in a telephone survey conducted in 2001 for the study entitled, "Measuring Gambling and Problem Gambling in Alberta Using the Canadian Problem Gambling Index (CPGI)" (Smith and Wynne, 2002). The second statistical data set results from VLT patron intercept interviews conducted at VLT venues throughout Alberta in the summer of 2002 specifically for the purpose of this present study.

The survey instrument employed in the VLT patron intercept interviews was designed to include items from the earlier CPGI telephone survey to ensure data were comparable. Additional items were added to the VLT patron intercept instrument to gather data specifically related to VLT play. In this chapter, data from each data set are reported. Statistically significant differences amongst variables are reported at either the .05 or .01 level.

## 4.1 VLT Gambling Prevalence

The most recent survey data available about VLT gambling prevalence amongst Alberta adult gamblers is from the study "Measuring Gambling and Problem Gambling in Alberta Using the Canadian Problem Gambling Index (CPGI)" (Smith and Wynne, 2002). This study reported that 13.4% of adult Alberta gamblers participated in VLT play in the twelve-month period prior to the study. Table 5 depicts how VLT play compared to other gambling activities during that same time period.

**TABLE 5**
**2002 Adult Albertans' Gambling Activity Preferences**

| | Gamblers/Game (N=1804) | | |
|---|---|---|---|
| **Gambling Activity** | **N** | **%** | **Rating** |
| Lottery tickets | 1115 | 61.8% | 1 |
| Raffles or fund raising tickets | 893 | 49.5% | 2 |
| Instant win or scratch tickets | 527 | 29.2% | 3 |
| Coin slots in a casino or racetrack | 286 | 15.9% | 4 |
| VLTs in a bar or lounge | 242 | 13.4% | 5 |
| Stocks, options, commodities | 221 | 12.3% | 6 |
| Card/board games with family or friends | 166 | 9.2% | 7 |
| Bingo | 154 | 8.5% | 8 |

| Gambling Activity | Gamblers/Game (N=1804) | | |
|---|---|---|---|
| | N | % | Rating |
| Games of skill (pool, golf, bowling, darts) | 117 | 6.5% | 9 |
| Sports pools | 115 | 6.4% | 10 |
| Games at Alberta casinos other than coin slots or VLTs (poker, blackjack, roulette, Keno) | 103 | 5.7% | 11 |
| Horse races (live or off-track) | 85 | 4.7% | 12 |
| Games at casinos outside of Alberta other than coin slots or VLTs (poker, blackjack, roulette, Keno) | 83 | 4.6% | 13 |
| Outcome of sporting events | 80 | 4.4% | 14 |
| Sport Select | 56 | 3.1% | 15 |
| Daily lottery (e.g. Pick 3) | 40 | 2.2% | 16 |
| Arcade/video games for money | 36 | 2.0% | 17 |
| Card games in non-regulated settings (other than with family/friends) | 19 | 1.1% | 18 |
| Any other form of gambling | 9 | 0.5% | 19 |
| Internet gambling | 5 | 0.3% | 20 |
| Sports with a bookie | 5 | 0.3% | 20 |

As Table 5 shows, lottery tickets (61.8%), raffles (49.5%), instant win or scratch tickets (29.2%), coin slots (15.9%), followed by VLTs (13.4%) were the five most popular gambling activities of adult Albertans. Conventional recreational gambling activities such as bingo (8.5%), casino games at Alberta casinos (except coin slots) (5.7%) and horse races (4.7%) accounted for less than 10% of adult Alberta gamblers choice of games.

## 4.2 Demographic Profile of Alberta VLT Players

This section compares VLT player respondents from the two study groups based on area of residence, gender, age, marital status, education, annual household income, ethnicity, employment and occupation.

Area of Residence

Respondents participating in this research were stratified into four areas of Alberta, namely, Edmonton, Calgary, Northern Alberta and Southern Alberta. As Table 6 depicts, the distribution of respondents in each of these four regions is fairly even for the Alberta CPGI study and skewed slightly toward more northern Alberta residents in the Alberta VLT sample. A fifth group, namely, non-Alberta residents (2.7%) were identified in the VLT patron intercept interviews. The majority of these respondents were residents of British Columbia who came into Alberta to play VLTs, as there are no VLTs in their province.

**TABLE 6**
**Area of Residence**

| Area of Residence | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Edmonton | 43 | 20.9% |
| Calgary | 35 | 17.0% |
| Northern Alberta | 67 | 32.5% |
| Southern Alberta | 48 | 23.3% |
| Non-Alberta Resident | 12 | 5.8% |
| No response | 1 | 0.5% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Edmonton | 59 | 24.4% |
| Calgary | 59 | 24.4% |
| Northern Alberta | 55 | 22.7% |
| Southern Alberta | 69 | 28.5% |

### Gender

As Table 7 shows, there were slightly more male than female respondents in both studies.

**TABLE 7**
**Gender**

| Gender | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Female | 91 | 44.2% |
| Male | 115 | 55.8% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Female | 110 | 45.5% |
| Male | 132 | 54.5% |

### Age

Over 80% of the respondents in both studies fell within the range of 18-59 years of age. Table 8 shows the two largest respondent age groups were "30-39" and "40-49." There is a significant drop in respondents in the "60-64" and "65 & over" age groups in both samples.

## TABLE 8
## Age

| Age | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| 18-24 | 14 | 6.8% |
| 25-29 | 14 | 6.8% |
| 30-39 | 50 | 24.3% |
| 40-49 | 48 | 23.3% |
| 50-59 | 37 | 18.0% |
| 60-64 | 13 | 6.3% |
| 65 & over | 28 | 13.6% |
| No response | 2 | 1.0% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| 18-24 | 53 | 21.9% |
| 25-29 | 43 | 17.8% |
| 30-39 | 55 | 22.7% |
| 40-49 | 47 | 19.4% |
| 50-59 | 24 | 9.9% |
| 60-64 | 10 | 4.1% |
| 65 & over | 10 | 4.1% |

Marital Status

The majority of the respondents in the two studies were "married" or "single, never married" and the smallest group of respondents was in the "widowed" category.

## TABLE 9
## Marital Status

| Marital Status | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Single, never married | 44 | 21.4% |
| Married | 87 | 42.2% |
| Common-law | 25 | 12.1% |
| Divorced or separated | 32 | 15.5% |
| Widowed | 15 | 7.3% |
| No response | 3 | 1.5% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Single, never married | 81 | 33.5% |
| Married | 101 | 41.7% |
| Common-law | 31 | 12.8% |
| Divorced or separated | 18 | 7.4% |
| Widowed | 11 | 4.5% |

## Education

As Table 10 shows, the majority of respondents in both studies "completed high school," and a similar large portion of each sample completed "college, technical school or university;" The smallest percentage educational category in both studies is "advanced degrees." The main difference between the two samples with regard to educational attainment was that on-site VLT players were twice as likely not to have completed high school than was the Alberta CPGI study VLT sample.

### TABLE 10
### Highest Level of Education Completed

| Highest Level of Education Completed | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Less than High School | 52 | 25.2% |
| Completed High School | 58 | 28.2% |
| Some College, Technical School, University | 34 | 16.5% |
| Completed College, Technical School, University | 59 | 28.6% |
| Advanced Degree | 3 | 1.5% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Less than High School | 30 | 12.4% |
| Completed High School | 81 | 33.5% |
| Some College, Technical School, University | 45 | 18.6% |
| Completed College, Technical School, University | 81 | 33.5% |
| Advanced Degree | 5 | 2.1% |

## Annual Household Income

When comparing annual household income, there is a fairly even distribution of respondents in all response categories (Table 11). The main difference between the two samples being, a higher percentage of respondents in the $39,999 and below annual household income category in the VLT study (21.9%) versus the Alberta CPGI study (18.4%).

### TABLE 11
### Annual Household Income

| Annual Household Income | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Under $20,000 | 22 | 10.7% |
| $20,000-29,999 | 23 | 11.2% |
| $30,000-39,999 | 20 | 9.7% |
| $40,000-49,999 | 18 | 8.7% |
| $50,000-59,999 | 20 | 9.7% |
| $60,000-69,999 | 13 | 6.3% |
| $70,000-79,999 | 11 | 5.3% |
| $80,000-89,999 | 12 | 5.8% |

| | | |
|---|---|---|
| $90,000-99,999 | 7 | 3.4% |
| $100,000-119,999 | 9 | 4.4% |
| $120,000-149,999 | 12 | 5.8% |
| More than $150,000 | 11 | 5.3% |
| Don't know | 5 | 2.4% |
| No response | 23 | 11.2% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| No response | 22 | 9.1% |
| Under $20,000 | 25 | 10.3% |
| $20,000-29,999 | 14 | 5.8% |
| $30,000-39,999 | 32 | 13.2% |
| $40,000-49,999 | 25 | 10.3% |
| $50,000-59,999 | 17 | 7.0% |
| $60,000-69,999 | 10 | 4.1% |
| $70,000-79,999 | 14 | 5.8% |
| $80,000-89,999 | 15 | 6.2% |
| $90,000-99,999 | 6 | 2.5% |
| $100,000-119,999 | 17 | 7.0% |
| $120,000-149,999 | 8 | 3.3% |
| More than $150,000 | 9 | 3.7% |
| Don't know | 28 | 11.6% |

## Ethnicity

Respondents were asked to report the ethnic grouping they considered themselves to be a part of. Over twenty-five ethnic groups, including Canadian, are reported in each study. Therefore, respondent ethnicity is reported based on the five largest ethnic groups identified in the two survey instruments. In the survey results shown in Table 12, the five major ethnic groups are: British; German; Aboriginal; French; and Ukrainian.

### TABLE 12
### Ethnicity

| **Ethnicity** | **Total** | |
|---|---|---|
| | **N** | **%** |
| **Alberta VLT Study (N=206)** | | |
| British (English, Scottish, Irish, Welsh) | 61 | 29.6% |
| Aboriginal (First Nation, Metis) | 34 | 16.5% |
| German | 22 | 10.7% |
| French | 18 | 8.7% |
| Ukrainian | 15 | 7.3% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| British (English, Scottish, Irish, Welsh) | 88 | 36.4% |
| Aboriginal (First Nation, Metis) | 18 | 7.4% |
| German | 43 | 17.8% |
| French | 16 | 6.6% |
| Ukrainian | 19 | 7.9% |

* This table displays only respondents in the top five ethnic groups.

## Employment Status

The majority of respondents reported their employment status as "employed either full-time" or "employed part-time." The categories with the least number of respondents were "students employed" and "students not employed." The "other" category of respondents includes self-employed; semi-retired; on social assistance (i.e., welfare and Assured Income for the Severely Handicapped); and unemployed not looking for work.

**TABLE 13**
**Employment Status**

| Employment Status | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Employed full-time (30 or more hours/week) | 118 | 57.3% |
| Employed part-time (less than 30 hours) | 14 | 6.8% |
| Unemployed (looking for work) | 15 | 7.3% |
| Student employed (part or full-time) | 5 | 2.4% |
| Student not employed | 2 | 1.0% |
| Retired | 25 | 12.1% |
| Homemaker | 9 | 4.4% |
| Other | 18 | 8.7% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Employed full-time (30 or more hours/week) | 161 | 66.5% |
| Employed part-time (less than 30 hours) | 18 | 7.4% |
| Unemployed (looking for work) | 7 | 2.9% |
| Student employed (part or full-time) | 8 | 3.3% |
| Student not employed | 10 | 4.1% |
| Retired | 15 | 6.2% |
| Homemaker | 16 | 6.6% |
| Other | 6 | 2.5% |
| No response | 1 | 0.4% |

## Occupation

A wide array of occupation types were reported in both studies. Table 14 displays the six major occupation classifications from the two study groups. The majority of respondent occupations can be classified as follows: "oilfield /construction work (non-trades);" "business, finance, administration;" "hospitality industry;" "self-employed;" "trades;" and "retail industry."

## TABLE 14
## Occupation

| Occupation | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Trades (Welder, Mechanic, Plumber) | 25 | 12.1% |
| Self Employed | 24 | 11.7% |
| Oilfield/Construction (non-trades) | 24 | 11.7% |
| Business, Finance, Administration | 23 | 11.2% |
| Retail Industry Occupations | 14 | 6.8% |
| Hospitality Industry Occupations | 25 | 12.1% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Trades (Welder, Mechanic, Plumber | 13 | 5.4% |
| Self Employed | 16 | 6.6% |
| Oilfield/Construction (non-trades) | 25 | 10.3% |
| Business, Finance, Administration | 22 | 9.1% |
| Retail Industry Occupations | 11 | 4.5% |
| Hospitality Industry Occupations | 18 | 7.4% |

* This table displays only respondents in the top six occupation categories.

## 4.3 VLT Player Patterns

The instrument used in the VLT patron intercept interviews contained questions about VLT play patterns and styles. The following are the results of these findings.

First Involvement with VLTs

VLT players interviewed in bars and lounges were asked, "When did you first start playing VLTs?" Table 15 shows the majority (64%) of respondents had played VLTs for over 5 years. Two other notable groups were respondents who first played VLTs when they were introduced into Alberta in 1991/92 (32%) and those who had been playing VLTs for three years or less (22.9%).

## TABLE 15
## Year First Started Playing VLTs

| Alberta VLT Study (N=206) | Total | |
|---|---|---|
| **Year** | N | % |
| 1982 | 2 | 1.0% |
| 1984 | 1 | 0.5% |
| 1986 | 1 | 0.5% |
| 1990 | 1 | 0.5% |
| 1991 | 26 | 12.6% |
| 1992 | 40 | 19.4% |
| 1993 | 16 | 7.8% |
| 1994 | 6 | 2.9% |
| 1995 | 11 | 5.3% |
| 1996 | 10 | 4.9% |

| | | |
|---|---|---|
| 1997 | 18 | 8.7% |
| 1998 | 8 | 3.9% |
| 1999 | 19 | 9.2% |
| 2000 | 24 | 11.7% |
| 2001 | 13 | 6.3% |
| 2002 | 10 | 4.9% |
| **Total** | **206** | **100%** |

VLT Play Location

Respondents were asked where they usually play VLTs and how far they traveled to play them. The majority (62.6%) reported playing at multiple venues, and of this group, 74% had little or no preference about where they played.

Respondents were further asked why they played VLTs at one establishment or a number of different ones. Respondents who usually played at the same venue did so because of convenience (i.e. close to home/work, on the way home from work,); they liked the venue atmosphere; or because their friends congregated there. The main reasons given by respondents who played at a number of different venues were convenience (i.e. play when and where I want), travel for work, and variety.

Table 16 depicts the responses of players who provided information about the distance traveled to play VLTs. The majority (37.9%) traveled less than 5 kilometers to play and another 16.4% reported traveling 5-10 kilometers. Responses in the "other" (17.1%) response category included such statements as "close to home," "walking distance," or "work at the establishment."

**TABLE 16**
**Distance Traveled to Play VLTs**

| **Alberta VLT Study (N=140)** | **Total** | |
|---|---|---|
| **Distance Traveled** | **N** | **%** |
| Less than 5 km | 53 | 37.9% |
| 5 km - 10 km | 23 | 16.4% |
| 11 km - 20 km | 8 | 5.7% |
| 21 km - 40 km | 13 | 9.3% |
| Over 40 km | 19 | 13.6% |
| Other | 24 | 17.1% |
| **Total** | **140** | **100%** |

* Table includes multiple responses

Characteristics of VLT Play

A series of questions asked respondents to detail their VLT play practices. The first question was: "Do you usually play the same VLT?" As Table 17 depicts, the majority of respondents (80.6%) did not usually play the same machine. The second question was "How often do you play more than one VLT machine at a time?" The majority of respondents (73.8%) reported "never" playing more than one machine, while the majority of those who played more than one machine at a time, did so, only "sometimes."

## TABLE 17
## VLT Play

| Alberta VLT Study | Total | |
|---|---|---|
| | N | % |
| **VLT Play** | | |
| **Do you usually play the same VLT? (N=206)** | | |
| Yes | 38 | 18.4% |
| No | 166 | 80.6% |
| No response | 2 | 1.0% |
| **How often do you play more than one VLT machine? (N=206)** | | |
| Never | 152 | 73.8% |
| Sometimes | 46 | 22.3% |
| Most of the time | 4 | 1.9% |
| Almost always | 2 | 1.0% |
| No response | 2 | 1.0% |

The third question about VLT playing practices asked respondents the time of day they usually played VLTs and why at that particular time. Of the 206 respondents, 162 provided information on the time of day they usually played VLTs. The other 44 respondents provided responses that were too broad to measure with most citing "anytime."

Table 18 indicates that the majority of respondents either played between 1 pm and 6 pm (45.9%) or 7 pm and 12 am (39.2%). Some respondents provided multiple responses because they often started in the late afternoon and their playtime spilled over into the evening. Many of those endorsing the response category "8 am – 12 pm" (11.6%) also played over the lunch hour. Few respondents (3.3%) played after midnight; those who did said they were winding down after work.

## TABLE 18
## Time of Day of VLT Play

| Alberta VLT Study (N=181) | Total | |
|---|---|---|
| **Time of Day** | N | % |
| 8 am – 12 pm | 21 | 11.6% |
| 1 pm – 6 pm | 83 | 45.9% |
| 7 pm – 12 am | 71 | 39.2% |
| 1 am – 7 am | 6 | 3.3% |
| **Total** | **181** | **100%** |

* Table includes multiple responses

Many reasons were given for why respondents played VLTs at the times they did. The most common responses included: convenience; filling time, relaxing, to relieve boredom; after work; and for some, it was seen as the best time to win (e.g. "bigger payout time").

Control of VLT Play

This section focuses on respondent control over VLT play, with respect to money and time spent gambling and gambling behaviour.

In Table 19 respondents' VLT spending and time played are presented. Respondents were asked if they set time and/or spending limits prior to playing VLTs. As Table 19 shows, 75.7% of respondents did set spending limits for their VLT play. Of this group, only 23.1% reported being able to stick to these limits. Most respondents exceeded their set spending limits "sometimes" (67.9%), while 5.8% exceeded these limits "most of the time" and 3.2% "almost always."

Only 17.5% of the on-site VLT player sample reported setting time limits for their play. Of those this group, only 22.2% reported sticking to these limits. Most (69.4%) respondents who exceeded their pre-set time limits did so only "sometimes."

**TABLE 19**
**Spending and Time Limits When Playing VLTs**

| **Alberta VLT Study** | **Total** | |
|---|---|---|
| **Dollar and Time Limits** | **N** | **%** |
| **Set a dollar limit (N=206)** | | |
| Yes | 156 | 75.7% |
| No | 50 | 24.3% |
| **How often dollar limit exceeded (N=156)** | | |
| Never | 36 | 23.1% |
| Sometimes | 106 | 67.9% |
| Most of the time | 9 | 5.8% |
| Almost always | 5 | 3.2% |
| **Set a time limit (N=206)** | | |
| Yes | 36 | 17.5% |
| No | 169 | 82.0% |
| Don't know | 1 | 0.5% |
| **How often time allocated exceeded (N=36)** | | |
| Never | 8 | 22.2% |
| Sometimes | 25 | 69.4% |
| Most of the time | 1 | 2.8% |
| Almost always | 2 | 5.6% |

## 4.4 Frequency/Duration of Play and Expenditures

Some different questions were posed in each of the two studies with regard to VLT play frequency, duration and expenditures. Accordingly, data presented in this section are reported as they pertain to the individual studies.

## Frequency of Play

In the realm of frequency of VLT play, both study groups were asked the same question and the results of their responses are displayed in Table 20.

When comparing the two data sets in Table 20, we note a significantly lower percentage of respondents in the Alberta VLT Patron Intercept Study reported their frequency of VLT play to be less than on a monthly basis (7.7%) compared to the telephone survey study group where 53.3% reported playing less than once a month. Two other noteworthy areas of comparison include those reporting playing VLTS "2 to 6 times per week" and "about once a week." In the Alberta VLT Study, 31.6% of respondents reported playing VLTs "2 to 6 times per week" and 25.7% "about once per week" compared to the 3.7% and 7.4%, respectively, of their counterparts in the Alberta CPGI Study – VLT Players.

**TABLE 20**
**Frequency of VLT Play**

| Frequency of VLT Play | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Daily | 7 | 3.4% |
| 2 to 6 times/week | 65 | 31.6% |
| About once/week | 53 | 25.7% |
| 2 to 3 times per month | 45 | 21.8% |
| About once/month | 20 | 9.7% |
| Between 6-11 times/year | 11 | 5.3% |
| Between 1-5 times/year | 5 | 2.4% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Daily | 3 | 1.2% |
| 2 to 6 times/week | 9 | 3.7% |
| About once/week | 18 | 7.4% |
| 2 to 3 times per month | 37 | 15.3% |
| About once/month | 45 | 18.6% |
| Between 6-11 times/year | 22 | 9.1% |
| Between 1-5 times/year | 107 | 44.2% |
| No response | 1 | 0.4% |

## Duration of Play

Respondents in both study groups were asked how much time they normally spend playing VLTs per session. As Table 21 reports, only 24.2% of the on-site VLT respondents reported usually playing for 30 minutes or less versus 44.2% of the Alberta CPGI study players that played for this length of time.

## TABLE 21
## Duration of VLT Play

| Duration of VLT Play | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Under 20 minutes | 19 | 9.2% |
| 20-30 minutes | 31 | 15.0% |
| 31-60 minutes | 61 | 29.6% |
| 61-120 minutes | 58 | 28.2% |
| 121-240 minutes | 19 | 9.2% |
| Over 4 hours | 5 | 2.4% |
| Don't know | 13 | 6.3% |
| **Alberta CPGI Study-VLT Players(N=242)** | | |
| Under 20 minutes | 86 | 35.5% |
| 20-30 minutes | 21 | 8.7% |
| 31-60 minutes | 79 | 32.6% |
| 61-120 minutes | 26 | 10.7% |
| 121-240 minutes | 14 | 5.8% |
| Over 4 hours | 13 | 5.4% |
| Don't know | 1 | 0.4% |
| No response | 2 | 0.8% |

Note: The "don't know" responses included VLT players who replied, "depending on when money runs out"

The Alberta VLT Study group was asked the longest amount of time they spent in a single VLT session and Table 22 shows the results of these findings. The highest percentage group reported a longest single VLT session in the "121-240 minute" range (32.5%), followed by "60-120 minutes" (24.8%), "over 6 hours" (18.4%) and "241-360 minutes" (17%).

## TABLE 22
## Longest Time Spent Playing VLTs in One Session

| Alberta VLT Study (N=206) | Total | |
|---|---|---|
| **Longest Time Spent in One VLT Session** | **N** | **%** |
| Under 60 minutes | 13 | 6.3% |
| 60-120 minutes | 51 | 24.8% |
| 121-240 minutes | 67 | 32.5% |
| 241-360 minutes | 35 | 17.0% |
| Over 6 hours | 38 | 18.4% |
| Don't know | 1 | 0.5% |
| No response | 1 | 0.5% |

### Expenditure

With respect to respondent VLT expenditures, the two study groups are considered separately as somewhat different questions were posed to each group.

Respondents who participated in the Alberta CPGI Study-VLT Players were asked how much they normally spend per month playing VLTs (not including winnings) and what was the largest amount they ever spent in a single day playing VLTs (not including winnings). The findings relative to these questions are displayed in Table 23.

As Table 23 shows, the majority of respondents (65.7%) spent under $50 per month on their VLT play. Less than 9% of respondents reported spending over $300 per month, with the largest monthly VLT expenditures being in the $2,000 to $4,000 range.

As for the largest amount ever spent in a single day on VLTs, again the majority of respondents (65.3%) reported largest single day expenditures under $50. Those reporting largest single day expenditures "over $500" (3.3%), stated amounts in the $700 to $2,000 range.

### TABLE 23
### VLT Monthly Expenditures and Largest Amount Spent on VLTs in One Day

| Alberta CPGI Study-VLT Players | Total | |
|---|---|---|
| **VLT Expenditures** | **N** | **%** |
| **Monthly Expenditures (not including winnings) (N=242)** | | |
| Under $10 | 71 | 29.3% |
| $10-$49 | 88 | 36.4% |
| $50-$99 | 21 | 8.7% |
| $100-$199 | 23 | 9.5% |
| $200-$299 | 8 | 3.3% |
| $300-$500 | 11 | 4.5% |
| Over $500 | 10 | 4.1% |
| Don't know | 5 | 2.1% |
| No response | 5 | 2.1% |
| **Largest Amount Spent in a Single Day (not including winnings) (N=242)** | | |
| Under $10 | 27 | 11.2% |
| $10-$49 | 131 | 54.1% |
| $50-$99 | 26 | 10.7% |
| $100-$199 | 25 | 10.3% |
| $200-$299 | 10 | 4.1% |
| $300-$500 | 12 | 5.0% |
| Over $500 | 8 | 3.3% |
| Don't know | 1 | .4% |
| No response | 2 | .8% |

Respondents in the Alberta VLT Study were asked three questions to describe their VLT expenditures, namely: (1) Each time you play the VLTs, how much do you usually spend, not counting winnings? (2) What is the most you have ever won on VLTs in a single day? And (3), what is the most you have ever lost on VLTs in a single day?

Table 24 shows that 36% of respondents spent less than $50 per VLT session. The percentage of respondents in the remaining expenditure categories are: "$100-$199" (22.8%); "$50-$99" (18%); and "$200-$299" (14.1%). Less than 8% of respondents reported spending over $300 per VLT session.

### TABLE 24
### Expenditure per VLT Session, Largest Amount Won and Lost in a Single Day

| **Alberta VLT Study** | **Total** | |
|---|---|---|
| **VLT Expenditures** | **N** | **%** |
| **$ Spent per VLT session (not counting winnings) (N=206)** | | |
| Under $10 | 10 | 4.9% |
| $10-$49 | 64 | 31.1% |
| $50-$99 | 37 | 18.0% |
| $100-$199 | 47 | 22.8% |
| $200-$299 | 29 | 14.1% |
| $300-$500 | 12 | 5.8% |
| Over $500 | 4 | 1.9% |
| Don't know | 2 | 1.0% |
| No response | 1 | 0.5% |
| **Largest amount won in a single day (N=206)** | | |
| $0 | 4 | 1.9% |
| Under $100 | 5 | 2.4% |
| $100-$199 | 1 | 0.5% |
| $200-$299 | 15 | 7.3% |
| $300-$399 | 8 | 3.9% |
| $400-$499 | 6 | 2.9% |
| $500-$999 | 45 | 21.8% |
| $1000-$1999 | 85 | 41.3% |
| $2000-$2999 | 23 | 11.2% |
| Over $3000 | 13 | 6.3% |
| No response | 1 | 0.5% |
| **Largest amount lost in a single day (N=206)** | | |
| Under $100 | 44 | 21.4% |
| $100-$199 | 35 | 17.0% |
| $200-$299 | 35 | 17.0% |
| $300-$399 | 14 | 6.8% |
| $400-$499 | 10 | 4.9% |
| $500-$999 | 35 | 17.0% |
| $1000-$1999 | 24 | 11.7% |
| $2000-$2999 | 1 | 0.5% |
| Over $3000 | 5 | 2.4% |
| No response | 3 | 1.5% |

A majority of respondents (80.6%) reported single day wins on VLTs in the $500 to $3,000 range; with 41.3% reporting largest single day wins between "$1,000 and $1,999"; 21.8% "$500-$999"; and 11.2% "$2,000-$2,999."

With respect to largest single day losses, Table 24 data indicate a fairly even distribution across response categories. However, less than 32% of respondents reported losing in excess of $500 in one day of VLT play.

VLT Venue Automated Teller Machine (ATM) Usage

In conjunction with VLT expenditure questions, patrons interviewed in the Alberta VLT study were asked how often they used Automated Teller Machines (ATMs) at VLT venues to get money to play VLTs. Table 25 shows 36.4% of respondents reported "never" using on-site ATMs. Of those respondents who did use ATMs at VLT venues, 33.5% reported "sometimes," 16.5% "almost always," and 13.6% "most of the time." Those respondents who reported using ATMs "almost always" did so at least once per VLT play session.

### TABLE 25
### VLT Venue Automated Teller Machine (ATM) Usage

| **Alberta VLT Study (N=206)** | **Total** | |
|---|---|---|
| **VLT Venue ATM Usage** | **N** | **%** |
| Almost Always | 34 | 16.5% |
| Most of the time | 28 | 13.6% |
| Sometimes | 69 | 33.5% |
| Never | 75 | 36.4% |

## 4.5 Motivation for VLT Play

In this section, factors motivating players to play VLTs are presented. Questions to determine these motivating factors pertain to why respondents played VLTs and with whom they normally played.

To ascertain why respondents play VLTs, each study group was asked to identify their motivations for playing VLTs. However, the question was asked to each group in a somewhat different fashion and because of this, the findings are presented separately.

The Alberta CPGI Study-VLT respondents were asked their reasons for playing VLTs. In Table 26, it is apparent that most respondents played VLTs for "entertainment and fun" (38%) and "to win money" (24%).

### TABLE 26
### Reasons for Playing VLTs

| **Alberta CPGI Study-VLT Players(N=242)** | **Total** | |
|---|---|---|
| **Reasons for Playing VLTs** | **N** | **%** |
| In order to do things with friends | 10 | 4.1% |
| For excitement or as a challenge | 9 | 3.7% |
| As a hobby | 1 | 0.4% |
| To win money | 58 | 24.0% |

| | | |
|---|---|---|
| Out of curiosity | 9 | 3.7% |
| For entertainment or fun | 92 | 38.0% |
| To distract yourself from everyday problems | 3 | 1.2% |
| Because you're good at it | 2 | 0.8% |
| Other | 39 | 16.1% |
| More than one reason (Specify) | 16 | 6.6% |
| Don't know | 1 | 0.4% |
| No response | 2 | 0.8% |

Alberta VLT Study respondents were asked "What is it about VLTs that you find attractive?" Their responses are categorized in Table 27. Most respondents cited "winning" (34.1%) and "pass time/relieve boredom" (19.7%) as the appealing aspects of VLT play. Other attractions to VLTs identified by respondents include "enjoyment/fun" (8.7%), "excitement/thrill/rush" (7.7%) and "entertainment/leisure" (6.3%).

## TABLE 27
## Attraction to VLT Play

| **Alberta VLT Study (N=208)** | **Total** | |
|---|---|---|
| **Attraction to VLT Play** | **N** | **%** |
| Enjoyment/fun | 18 | 8.7% |
| Venue atmosphere | 9 | 4.3% |
| Winning | 71 | 34.1% |
| Challenge | 3 | 1.4% |
| Excitement/thrill/rush | 16 | 7.7% |
| Social outing | 1 | 0.5% |
| Entertainment/leisure | 13 | 6.3% |
| Pass the time/relieve boredom | 41 | 19.7% |
| Relaxing/stress relief | 15 | 7.2% |
| Distraction/escape | 5 | 2.4% |
| Other specify | 16 | 7.7% |
| **Total** | **208** | **100%** |

* Table includes multiple responses

### Co-participants

Taking the two study groups separately, VLT playing respondents in the Alberta CPGI Study reported playing with "friends or co-workers" (34.7%) as their number one co-participant response, followed by "alone" (27.3%) and "with spouse or partner" (22.7%). Conversely, Alberta VLT Study respondents reported "alone" (50%) as the number one response, followed by "with spouse or partner" (22.3%), "more than one co-participant" (13.1%) and "friends or co-workers" (10.2%).

## TABLE 28
## VLT Co-participants

| Co-participants | Total | |
|---|---|---|
| | N | % |
| **Alberta VLT Study (N=206)** | | |
| Alone | 103 | 50.0% |
| With spouse or partner | 46 | 22.3% |
| With other family members | 9 | 4.4% |
| With friends or co-workers | 21 | 10.2% |
| More than one of selections above (specify) | 27 | 13.1% |
| **Alberta CPGI Study-VLT Players (N=242)** | | |
| Alone | 66 | 27.3% |
| With spouse or partner | 55 | 22.7% |
| With other family members | 11 | 4.5% |
| With friends or co-workers | 84 | 34.7% |
| With some other individual/group than above (specify) | 1 | 0.4% |
| More than one of selections above (specify) | 22 | 9.1% |
| No response | 3 | 1.2% |

### Cognition, Systems, Superstitions and Predictions

In this section, factors that might propel respondents to continue VLT play are examined. In the Alberta VLT study, respondents were questioned about systems and strategies they employed for beating the VLTs.

## TABLE 29
## Player Cognitions about Winning on VLTs

| **Alberta VLT Study** | **Total** | |
|---|---|---|
| **Player Cognition** | **N** | **%** |
| **After losing on the VLTs many times in a row, you are more likely to win (N=206)** | | |
| Strongly agree | 5 | 2.4% |
| Agree | 26 | 12.6% |
| Disagree | 140 | 68.0% |
| Strongly disagree | 25 | 12.1% |
| Don't know | 10 | 4.9% |
| **You could win more on the VLTs if you us a certain system or strategy (N=206)** | | |
| Strongly agree | 2 | 1.0% |
| Agree | 27 | 13.1% |
| Disagree | 140 | 68.0% |
| Strongly disagree | 32 | 15.5% |
| Don't know | 5 | 2.4% |

Two statements were presented to respondents to assess their cognitions about winning on VLTs. The first statement was, "After losing on VLTs many times in a row, you are more likely to win." As shown in Table 29, over 80% of respondents stated that they either disagreed or strongly disagreed with this statement. The second statement, "You could win more on the VLTs if you used a certain system," produced similar results, as 83% of respondents either "disagreed" or "strongly disagreed" with the statement.

As Table 30 shows, the majority of respondents claimed not to have a system (70.4%); nor were they influenced by superstitions or rituals to bring them luck (84%) when playing the VLTs; nor think they could predict when big payouts are coming (86.9%).

**TABLE 30**
**VLT Player Systems, Superstitions and Predictability of Big Payouts**

| **Alberta VLT Study** | Total | |
|---|---|---|
| **Systems, Superstitions, and Predictability of Big Payouts** | N | % |
| **System for playing VLTs (N=206)** | | |
| Yes | 60 | 29.1% |
| No | 145 | 70.4% |
| No response | 1 | 0.5% |
| **Superstitions or rituals to bring luck (N=206)** | | |
| Yes | 33 | 16.0% |
| No | 173 | 84.0% |
| **Ability to predict when a big VLT payout is coming (N=206)** | | |
| Yes | 26 | 12.6% |
| No | 179 | 86.9% |
| Don't know | 1 | 0.5% |

## Other Motivators

Alberta VLT study respondents were also asked, "Do you play VLTs to win money or to buildup credits?" The rationale for this question was to find out if VLT players play to "win money" or "to stay in action." The findings from this question show that the majority of respondents (74.8%) said they played VLTs for money, 12.6% for credits and 10.7% for both.

Another perceived motivator for playing VLTs is "return on investment." Respondents were asked, "What percentage of money that goes into VLTs do you think goes back to players?"

One hundred and seventy-five of the 206 respondents provided an estimation of the percentage of money they thought goes back to VLT players. Of this group, 40% cited "less than 20%"; while other responses included: "20-39%" (30.9%); "40-59%" (15.4%); "60-80%" (8.6%); and "over 80%" (5.1%). The majority of respondents (70.9%) estimated that less than 39% of the money that goes into VLTs is paid back to the players; with a significant number believing the payout was less than 20%.

## CHAPTER FIVE
## PROBLEM GAMBLING AMONGST VLT PLAYERS

As described in the preceding chapters, two methodologies were used to collect data for this research: (1) VLT bar/lounge patron intercept interviews (Alberta VLT Study) and (2) VLT players identified from the 2002 study entitled, "Measuring Problem Gambling in Alberta Using the Canadian Problem Gambling Index (CPGI)" (Alberta CPGI Study-VLT Players). Each of these methodologies employed distinct instruments (see Appendices 1 and 2) for collecting data. Items pertaining to demographic and gambler sub-type data are identical in both instruments. However, in the Alberta VLT Study, additional items were employed to assess specific VLT gambling behaviors; consequently, these items are reported as stand-alone findings in this chapter.

Comparative data are displayed in stand-alone formats. This reporting method shows any significant differences in findings between the two study groups.

### 5.1 Problem Gambling Prevalence amongst VLT Players

Measurement of problem gambling prevalence amongst VLT players was done using a CPGI sub-scale known as the Problem Gambling Severity Index (PGSI). The PGSI uses nine items to distinguish four gambler sub-types, namely: non-problem, low-risk, moderate-risk, and problem. These nine PGSI scoring items were incorporated in both survey instruments discussed in this research.

Before commenting on problem gambling prevalence rates amongst VLT players, it is important to know the general problem gambling prevalence rates amongst adult gamblers in Alberta. In the most recent Alberta prevalence study (Smith and Wynne, 2002) that measured adult problem gambling prevalence using the PGSI: 81.7% of gambling respondents were non-problem gamblers; 12% were low-risk gamblers; 4.8% were moderate-risk gamblers; and 1.6% were problem gamblers.

Table 31 shows the PGSI results from the two study groups to be significantly different. A much higher problem gambling prevalence rate was recorded for respondents in the VLT study (patron intercept interviews) compared to the more broadly sampled CPGI study (telephone survey).

**TABLE 31**
**Gambler Sub-Types**

| Surveys | Non-Problem Gamblers (PGSI=0) | Low-risk Gamblers (PGSI=1-2) | Moderate-risk Gamblers (PGSI=3-7) | Problem Gamblers (PGSI=8+) | N= |
|---|---|---|---|---|---|
| Alberta VLT Study | 39 | 41 | 81 | 45 | 206 |
| | (18.9%) | (19.9%) | (39.3%) | (21.8%) | (100%) |
| Alberta CGPI VLT Players | 141 | 55 | 32 | 14 | 242 |
| | (58.3%) | (22.7%) | (13.2%) | (5.8%) | (100%) |

There is a three to four time higher rate of moderate-risk and problem gamblers in the Alberta VLT study compared to the Alberta CPGI Study-VLT Players cohort. Similarly, there is a significant difference between the two study groups with respect to the non-problem gambler cohorts; that is, the Alberta VLT Study showed 18.9% of VLT players scoring as non-problem gamblers compared with 58.3% of VLT players from the Alberta CPGI Study telephone survey.

### 5.2 Demographic Profile of Alberta VLT Problem Gamblers

This section compares the four gambler sub-types for the two studies based on area of residence, gender, age, marital status, education, household income, ethnicity, employment and occupation.

#### Area of Residence

Four areas of the province were used to stratify survey respondents, namely, Edmonton, Calgary, Northern Alberta and Southern Alberta. What stands out in the findings presented in Table 32 is the higher prevalence rate of problem gambling patron intercept VLT players in the northern half of Alberta [Edmonton (32.6%); Northern Alberta (25.4%)] versus southern Alberta [Calgary (14.3%) and Southern Alberta (12.5%)]. Albeit the number is small, another interesting finding was the high rate of moderate-risk (33.3%) and problem (25%) gamblers in the non-Alberta resident population.

TABLE 32
Area of Residence by Gambler Sub-Type

| Area of Residence | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Edmonton | 6 | 14.0% | 9 | 20.9% | 14 | 32.6% | 14 | 32.6% | 43 | 100% | |
| Calgary | 9 | 25.7% | 9 | 25.7% | 12 | 34.3% | 5 | 14.3% | 35 | 100% | |
| Northern Alberta | 12 | 17.9% | 12 | 17.9% | 26 | 38.8% | 17 | 25.4% | 67 | 100% | |
| Southern Alberta | 11 | 22.9% | 7 | 14.6% | 24 | 50.0% | 6 | 12.5% | 48 | 100% | |
| Non Alberta Resident | 1 | 8.3% | 4 | 33.3% | 4 | 33.3% | 3 | 25.0% | 12 | 100% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 100% | 0 | 0.0% | 1 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| Edmonton | 32 | 54.2% | 16 | 27.1% | 8 | 13.6% | 3 | 5.1% | 59 | 100% | |
| Calgary | 37 | 62.7% | 10 | 16.9% | 6 | 10.2% | 6 | 10.2% | 59 | 100% | |
| Northern Alberta | 30 | 54.5% | 14 | 25.5% | 9 | 16.4% | 2 | 3.6% | 55 | 100% | |
| Southern Alberta | 42 | 60.9% | 15 | 21.7% | 9 | 13.0% | 3 | 4.3% | 69 | 100% | |

#### Gender

Table 33 shows both male and females in the Alberta VLT study to be at much greater risk for moderate risk and problem gambling than in the broader Alberta survey.

Surprisingly, females (23.1%) in the Alberta VLT study were more likely than males (20.9%) to be problem gamblers.

### TABLE 33
### Gender by Gambler Sub-Type

| Gender | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Female | 18 | 19.8% | 17 | 18.7% | 35 | 38.5% | 21 | 23.1% | 91 | 100% | |
| Male | 21 | 18.3% | 24 | 20.9% | 46 | 40.0% | 24 | 20.9% | 115 | 100% | |
| **Alberta CPGI Study-VLT Players (n=242)** | | | | | | | | | | | |
| Female | 70 | 63.6% | 16 | 14.5% | 17 | 15.5% | 7 | 6.4% | 110 | 100% | |
| Male | 71 | 53.8% | 39 | 29.5% | 15 | 11.4% | 7 | 5.3% | 132 | 100% | |

Age

As depicted in Table 34, there are no statistically significant differences amongst the four gambler sub-types for age. Nearly sixty percent of the problem gamblers in the Alberta VLT study were between the ages of 30 and 49.

### TABLE 34
### Age by Gambler Sub-Type

| Age | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| 18-24 | 2 | 14.3% | 2 | 14.3% | 7 | 50.0% | 3 | 21.4% | 14 | 100% | |
| 25-29 | 1 | 7.1% | 4 | 28.6% | 4 | 28.6% | 5 | 35.7% | 14 | 100% | |
| 30-39 | 8 | 16.0% | 9 | 18.0% | 18 | 36.0% | 15 | 30.0% | 50 | 100% | |
| 40-49 | 10 | 20.8% | 7 | 14.6% | 21 | 43.8% | 10 | 20.8% | 48 | 100% | |
| 50-59 | 6 | 16.2% | 11 | 29.7% | 14 | 37.8% | 6 | 16.2% | 37 | 100% | |
| 60-64 | 4 | 30.8% | 3 | 23.1% | 4 | 30.8% | 2 | 15.4% | 13 | 100% | |
| 65 & over | 8 | 28.6% | 5 | 17.9% | 12 | 42.9% | 3 | 10.7% | 28 | 100% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 50.0% | 1 | 50.0% | 2 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| 18-24 | 30 | 56.6% | 15 | 28.3% | 4 | 7.5% | 4 | 7.5% | 53 | 100% | |
| 25-29 | 30 | 69.8% | 6 | 14.0% | 5 | 11.6% | 2 | 4.7% | 43 | 100% | |
| 30-39 | 27 | 49.1% | 18 | 32.7% | 8 | 14.5% | 2 | 3.6% | 55 | 100% | |
| 40-49 | 29 | 61.7% | 7 | 14.9% | 7 | 14.9% | 4 | 8.5% | 47 | 100% | |
| 50-59 | 12 | 50.0% | 5 | 20.8% | 6 | 25.0% | 1 | 4.2% | 24 | 100% | |
| 60-64 | 7 | 70.0% | 2 | 20.0% | 0 | 0.0% | 1 | 10.0% | 10 | 100% | |
| 65 & over | 6 | 60.0% | 2 | 20.0% | 2 | 20.0% | 0 | 0.0% | 10 | 100% | |

Marital Status

It is evident from Table 35 that, in the Alberta VLT study, respondents who reported being divorced or separated, living in common-law relationships, or widowed were more likely to be moderate-risk or problem gamblers than were married or single respondents.

### TABLE 35
### Marital Status by Gambler Sub-Type

| Marital Status | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Single, never married | 10 | 22.7% | 8 | 18.2% | 21 | 47.7% | 5 | 11.4% | 44 | 100% | |
| Married | 17 | 19.5% | 21 | 24.1% | 29 | 33.3% | 20 | 23.0% | 87 | 100% | |
| Common-law | 3 | 12.0% | 3 | 12.0% | 12 | 48.0% | 7 | 28.0% | 25 | 100% | |
| Divorced or separated | 6 | 18.8% | 5 | 15.6% | 12 | 37.5% | 9 | 28.1% | 32 | 100% | |
| Widowed | 2 | 13.3% | 4 | 26.7% | 6 | 40.0% | 3 | 20.0% | 15 | 100% | |
| No response | 1 | 33.3% | 0 | 0.0% | 1 | 33.3% | 1 | 33.3% | 3 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| Single, never married | 43 | 53.1% | 23 | 28.4% | 9 | 11.1% | 6 | 7.4% | 81 | 100% | |
| Married | 62 | 61.4% | 19 | 18.8% | 15 | 14.9% | 5 | 5.0% | 101 | 100% | |
| Common-law | 19 | 61.3% | 6 | 19.4% | 4 | 12.9% | 2 | 6.5% | 31 | 100% | |
| Divorced or separated | 11 | 61.1% | 4 | 22.2% | 2 | 11.1% | 1 | 5.6% | 18 | 100% | |
| Widowed | 6 | 54.5% | 3 | 27.3% | 2 | 18.2% | 0 | 0.0% | 11 | 100% | |

Education

The findings in Table 36 show that 65% of those respondents in the Alberta VLT study who reported having "completed high school" or "less than high school" were moderate risk or problem gamblers.

### TABLE 36
### Highest Level of Education Completed by Gambler Sub-Type

| Education | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Less than High School | 10 | 19.2% | 9 | 17.3% | 22 | 42.3% | 11 | 21.2% | 52 | 100% | |
| Completed High School | 10 | 17.2% | 12 | 20.7% | 22 | 37.9% | 14 | 24.1% | 58 | 100% | |
| Some College, Technical School, University | 8 | 23.5% | 6 | 17.6% | 11 | 32.4% | 9 | 26.5% | 34 | 100% | |
| Completed College, Technical School, University | 8 | 13.6% | 14 | 23.7% | 26 | 44.1% | 11 | 18.6% | 59 | 100% | |
| Advanced Degree | 3 | 100% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| Less than High School | 12 | 40.0% | 9 | 30.0% | 7 | 23.3% | 2 | 6.7% | 30 | 100% | |
| Completed High | 48 | 59.3% | 18 | 22.2% | 12 | 14.8% | 3 | 3.7% | 81 | 100% | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| School | | | | | | | | | | | |
| Some College, Technical School, University | 28 | 62.2% | 10 | 22.2% | 2 | 4.4% | 5 | 11.1% | 45 | 100% | |
| Completed College, Technical School, University | 51 | 63.0% | 16 | 19.8% | 10 | 12.3% | 4 | 4.9% | 81 | 100% | |
| Advanced Degree | 2 | 40.0% | 2 | 40.0% | 1 | 20.0% | 0 | 0.0% | 5 | 100% | |

Household Income

The Alberta VLT Study findings are anomalous in regard to household income, in that: 58.3% of the respondents reporting an annual household income of "$80,000 - $89,999," scored as moderate-risk and 33.3% as problem gamblers; in the "under $20,000" category, 54.5% were moderate-risk and 31.8% problem gamblers; and finally, in the "$120,000 - $149,999" household income range, 25% were moderate-risk and 41.7% problem gamblers. At-risk VLT gamblers were more likely to come from both lower and upper household income groups than from mid-range income categories.

**TABLE 37**
**Annual Household Income by Gambler Sub-Type**

| Annual Income | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Under $20,000 | 1 | 4.5% | 2 | 9.1% | 12 | 54.5% | 7 | 31.8% | 22 | 100% | |
| $20,000-29,999 | 4 | 17.4% | 6 | 26.1% | 9 | 39.1% | 4 | 17.4% | 23 | 100% | |
| $30,000-39,999 | 3 | 15.0% | 4 | 20.0% | 8 | 40.0% | 5 | 25.0% | 20 | 100% | |
| $40,000-49,999 | 5 | 27.8% | 5 | 27.8% | 6 | 33.3% | 2 | 11.1% | 18 | 100% | |
| $50,000-59,999 | 7 | 35.0% | 4 | 20.0% | 5 | 25.0% | 4 | 20.0% | 20 | 100% | |
| $60,000-69,999 | 2 | 15.4% | 4 | 30.8% | 3 | 23.1% | 4 | 30.8% | 13 | 100% | |
| $70,000-79,999 | 1 | 9.1% | 3 | 27.3% | 5 | 45.5% | 2 | 18.2% | 11 | 100% | |
| $80,000-89,999 | 0 | 0.0% | 1 | 8.3% | 7 | 58.3% | 4 | 33.3% | 12 | 100% | |
| $90,000-99,999 | 2 | 28.6% | 3 | 42.9% | 2 | 28.6% | 0 | 0.0% | 7 | 100% | |
| $100,000-119,999 | 1 | 11.1% | 1 | 11.1% | 4 | 44.4% | 3 | 33.3% | 9 | 100% | |
| $120,000-149,999 | 1 | 8.3% | 3 | 25.0% | 3 | 25.0% | 5 | 41.7% | 12 | 100% | |
| More than $150,000 | 5 | 45.5% | 2 | 18.2% | 3 | 27.3% | 1 | 9.1% | 11 | 100% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 4 | 80.0% | 1 | 20.0% | 5 | 100% | |
| No response | 7 | 30.4% | 3 | 13.0% | 10 | 43.5% | 3 | 13.0% | 23 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| Under $20,000 | 12 | 48.0% | 4 | 16.0% | 5 | 20.0% | 4 | 16.0% | 25 | 100% | |
| $20,000-29,999 | 7 | 50.0% | 3 | 21.4% | 2 | 14.3% | 2 | 14.3% | 14 | 100% | |
| $30,000-39,999 | 23 | 71.9% | 6 | 18.8% | 3 | 9.4% | 0 | 0.0% | 32 | 100% | |
| $40,000-49,999 | 17 | 68.0% | 5 | 20.0% | 2 | 8.0% | 1 | 4.0% | 25 | 100% | |
| $50,000-59,999 | 12 | 70.6% | 3 | 17.6% | 1 | 5.9% | 1 | 5.9% | 17 | 100% | |
| $60,000-69,999 | 6 | 60.0% | 3 | 30.0% | 1 | 10.0% | 0 | 0.0% | 10 | 100% | |
| $70,000-79,999 | 8 | 57.1% | 4 | 28.6% | 0 | 0.0% | 2 | 14.3% | 14 | 100% | |
| $80,000-89,999 | 5 | 33.3% | 2 | 13.3% | 6 | 40.0% | 2 | 13.3% | 15 | 100% | |
| $90,000-99,999 | 3 | 50.0% | 2 | 33.3% | 1 | 16.7% | 0 | 0.0% | 6 | 100% | |
| $100,000-119,999 | 10 | 58.8% | 6 | 35.3% | 1 | 5.9% | 0 | 0.0% | 17 | 100% | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $120,000-149,999 | 5 | 62.5% | 2 | 25.0% | 1 | 12.5% | 0 | 0.0% | 8 | 100% | |
| More than $150,000 | 4 | 44.4% | 2 | 22.2% | 2 | 22.2% | 1 | 11.1% | 9 | 100% | |
| Don't know | 18 | 64.3% | 6 | 21.4% | 3 | 10.7% | 1 | 3.6% | 28 | 100% | |
| No response | 11 | 50.0% | 7 | 31.8% | 4 | 18.2% | 0 | 0.0% | 22 | 100% | |

Ethnicity

Respondent ethnicity is reported based on the five largest ethnic groups identified in the two surveys. Table 38 shows Aboriginal VLT players are at the greatest risk of developing a gambling problem in both studies. In the Alberta VLT study, 67.6% of the Aboriginal cohort scored as either moderate risk or problem gamblers, followed by respondents of Ukrainian descent, 53.3% of who scored as moderate risk or problem gamblers.

### TABLE 38
### Ethnicity by Gambler Sub-Type

| Ethnicity | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| British (English, Scottish, Irish, Welsh) | 13 | 21.3% | 13 | 21.3% | 25 | 41.0% | 10 | 16.4% | 61 | 100% | |
| Aboriginal (First Nation, Metis) | 6 | 17.6% | 5 | 14.7% | 10 | 29.4% | 13 | 38.2% | 34 | 100% | |
| German | 5 | 22.7% | 4 | 18.2% | 9 | 40.9% | 4 | 18.2% | 22 | 100% | |
| French | 6 | 33.3% | 1 | 5.6% | 7 | 38.9% | 4 | 22.2% | 18 | 100% | |
| Ukrainian | 1 | 6.7% | 3 | 20.0% | 8 | 53.3% | 3 | 20.0% | 15 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| British (English, Scottish, Irish, Welsh) | 55 | 62.5% | 16 | 18.2% | 13 | 14.8% | 4 | 4.5% | 88 | 100% | |
| Aboriginal (First Nation, Metis) | 9 | 50.0% | 4 | 22.2% | 2 | 11.1% | 3 | 16.7% | 18 | 100% | |
| German | 30 | 69.8% | 10 | 23.3% | 3 | 7.0% | 0 | 0.0% | 43 | 100% | |
| French | 10 | 62.5% | 4 | 25.0% | 1 | 6.3% | 1 | 6.3% | 16 | 100% | |
| Ukrainian | 13 | 68.4% | 4 | 21.1% | 2 | 10.5% | 0 | 0.0% | 19 | 100% | |

* This table displays only respondents in the top five ethnic groups.

Employment

The findings for employment status are displayed in Table 39. Respondents reporting their employment status as "other" include: self-employed; semi-retired; social assistance (i.e., welfare and Assured Income for the Severely Handicapped); and unemployed not looking for work.

In the Alberta VLT study findings, respondents who reported being "unemployed looking for work" (40%), "homemakers" (33.3%), "employed part time" (28.6%) or "other" (27.8%) were more likely to score as problem gamblers than were respondents in other employment status categories. Respondents reporting being full time employees or retirees were less likely to score as problem gamblers. In the Alberta VLT Study, less than 35% of respondents in any of the employment status response categories showed as non-problem gamblers; in fact, most categories fell below the 25% mark.

**TABLE 39**
**Employment Status by Gambler Sub-Type**

| Employment Status | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Employed full-time (30 or more hours/week) | 26 | 22.0% | 25 | 21.2% | 47 | 39.8% | 20 | 16.9% | 118 | 100% | |
| Employed part-time (less than 30 hours) | 2 | 14.3% | 2 | 14.3% | 6 | 42.9% | 4 | 28.6% | 14 | 100% | |
| Unemployed (looking for work) | 1 | 6.7% | 1 | 6.7% | 7 | 46.7% | 6 | 40.0% | 15 | 100% | |
| Student employed (part or full-time) | 0 | 0.0% | 0 | 0.0% | 4 | 80.0% | 1 | 20.0% | 5 | 100% | |
| Student not employed | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 100% | 2 | 100% | |
| Retired | 6 | 24.0% | 6 | 24.0% | 9 | 36.0% | 4 | 16.0% | 25 | 100% | |
| Homemaker | 3 | 33.3% | 2 | 22.2% | 1 | 11.1% | 3 | 33.3% | 9 | 100% | |
| Other | 1 | 5.6% | 5 | 27.8% | 7 | 38.9% | 5 | 27.8% | 18 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| No response | 1 | 100% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 100% | |
| Employed full-time (30 or more hours/week) | 98 | 60.9% | 35 | 21.7% | 19 | 11.8% | 9 | 5.6% | 161 | 100% | |
| Employed part-time (less than 30 hours) | 9 | 50.0% | 6 | 33.3% | 3 | 16.7% | 0 | 0.0% | 18 | 100% | |
| Unemployed (looking for work) | 5 | 71.4% | 2 | 28.6% | 0 | 0.0% | 0 | 0.0% | 7 | 100% | |
| Student employed (part or full-time) | 2 | 25.0% | 5 | 62.5% | 1 | 12.5% | 0 | 0.0% | 8 | 100% | |
| Student not employed | 6 | 60.0% | 2 | 20.0% | 2 | 20.0% | 0 | 0.0% | 10 | 100% | |
| Retired | 9 | 60.0% | 2 | 13.3% | 4 | 26.7% | 0 | 0.0% | 15 | 100% | |
| Homemaker | 9 | 56.3% | 2 | 12.5% | 1 | 6.3% | 4 | 25.0% | 16 | 100% | |
| Other | 2 | 33.3% | 1 | 16.7% | 2 | 33.3% | 1 | 16.7% | 6 | 100% | |

## Occupation

In Table 40, the six most frequently mentioned occupation types are displayed. In the Alberta VLT study, the job categories with the highest percentage of problem gamblers included "non-trade oilfield and construction workers" (75%); "trades" (66%); "business, finance administration (65.2%); "hospitality industry workers (restaurant, bars)" (60%); and self-employed (62.5%). The "retail industry" (28.5%) was the only one of the six occupational categories listed to contain fewer than 50% moderate risk or problem gamblers.

## TABLE 40
## Occupation by Gambler Sub-Type

| Occupation | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Total | | Sign |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | | | |
| Trades (Welder, Mechanic, Plumber) | 4 | 16.0% | 5 | 20.0% | 11 | 44.0% | 5 | 20.0% | 25 | 100% | |
| Self Employed | 5 | 20.8% | 4 | 16.7% | 11 | 45.8% | 4 | 16.7% | 24 | 100% | |
| Oilfield/Construction (non-trades) | 4 | 16.7% | 2 | 8.3% | 13 | 54.2% | 5 | 20.8% | 24 | 100% | |
| Business, Finance, Administration | 5 | 21.7% | 3 | 13.0% | 11 | 47.8% | 4 | 17.4% | 23 | 100% | |
| Retail Industry Occupations | 4 | 28.6% | 6 | 42.9% | 3 | 21.4% | 1 | 7.1% | 14 | 100% | |
| Hospitality Industry Occupations | 5 | 20.0% | 5 | 20.0% | 8 | 32.0% | 7 | 28.0% | 25 | 100% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | | | |
| Trades (Welder, Mechanic, Plumber) | 6 | 46.2% | 3 | 23.1% | 3 | 23.1% | 1 | 7.7% | 13 | 100% | |
| Self Employed | 6 | 37.5% | 8 | 50.0% | 1 | 6.3% | 1 | 6.3% | 16 | 100% | |
| Oilfield/Construction (non-trades) | 14 | 56.0% | 6 | 24.0% | 1 | 4.0% | 4 | 16.0% | 25 | 100% | |
| Business, Finance, Administration | 16 | 72.7% | 5 | 22.7% | 1 | 4.5% | 0 | 0.0% | 22 | 100% | |
| Retail Industry Occupations | 4 | 36.4% | 3 | 27.3% | 4 | 36.4% | 0 | 0.0% | 11 | 100% | |
| Hospitality Industry Occupations | 9 | 50.0% | 4 | 22.2% | 5 | 27.8% | 0 | 0.0% | 18 | 100% | |

* This table displays only respondents in the top six occupational categories.

## 5.3 VLT Player Patterns by Gambler Sub-Type

### First Involvement with VLTs

In Table 41, the year respondents first started playing VLTs is displayed. In comparing respondents by gambler sub-type, non-problem (48.8%) and low-risk (34.1%) gamblers were more likely than moderate-risk (27.1%) and problem (24.4%) gamblers to report playing VLTS less than five years. In contrast, the majority of respondents who reported playing VLTs for five years or longer showed a greater level of at-risk gambling behavior.

## TABLE 41
## Year First Started Playing VLTs by Gambler Sub-Type

| Alberta VLT Study (N=206) | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| **Year First Started** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| 1982 | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| 1984 | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| 1986 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| 1990 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| 1991 | 5 | 12.8% | 4 | 9.8% | 10 | 12.3% | 7 | 15.6% | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1992 | 5 | 12.8% | 8 | 19.5% | 22 | 27.2% | 5 | 11.1% | |
| 1993 | 0 | 0.0% | 2 | 4.9% | 5 | 6.2% | 9 | 20.0% | |
| 1994 | 1 | 2.6% | 2 | 4.9% | 1 | 1.2% | 2 | 4.4% | |
| 1995 | 2 | 5.1% | 3 | 7.3% | 3 | 3.7% | 3 | 6.7% | |
| 1996 | 2 | 5.1% | 2 | 4.9% | 4 | 4.9% | 2 | 4.4% | |
| 1997 | 3 | 7.7% | 5 | 12.2% | 7 | 8.6% | 3 | 6.7% | |
| 1998 | 1 | 2.6% | 1 | 2.4% | 5 | 6.2% | 1 | 2.2% | |
| 1999 | 4 | 10.3% | 6 | 14.6% | 5 | 6.2% | 4 | 8.9% | |
| 2000 | 6 | 15.4% | 3 | 7.3% | 9 | 11.1% | 6 | 13.3% | |
| 2001 | 3 | 7.7% | 5 | 12.2% | 4 | 4.9% | 1 | 2.2% | |
| 2002 | 6 | 15.4% | 0 | 0.0% | 4 | 4.9% | 0 | 0.0% | |
| Total | 39 | 100% | 41 | 100% | 81 | 100% | 45 | 100% | |

## VLT Play Locations

Respondents were asked where they usually played VLTs. As shown in Table 42, the majority in all gambler-sub types typically played at more than one venue; with the exception of non-problem gamblers (55.3%) who were more likely than the other three gambler sub-types to report a penchant for playing at the same venue.

In the third line item of Table 42, of the VLT players who reported playing VLTs at more than one venue, most stated having no preference for a specific bar or lounge; to quote many respondents, they play VLTs "anywhere."

### TABLE 42
### VLT Venue Preferences by Gambler Sub-Type

| **Alberta VLT Study (N=204)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Venue Preferences** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| Usually play at one venue | 21 | 55.3% | 11 | 26.8% | 29 | 35.8% | 16 | 36.4% | |
| Usually play at more than one venue | 17 | 44.7% | 30 | 73.2% | 52 | 64.2% | 28 | 63.6% | |
| **Total** | **38** | **100%** | **41** | **100%** | **81** | **100%** | **44** | **100%** | |
| Of those report playing at more than one venue with no preference where they play | 17 | 100% | 21 | 70.0% | 37 | 71.2% | 23 | 82.1% | |

## Distance Traveled to Play VLTs

Respondents were asked about the distance they usually travel to play VLTs and these data are displayed in Table 43.

## TABLE 43
## Distance Traveled to Play VLTs by Gambler Sub-Type

| Alberta VLT Study (N=140) | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| **Distance Traveled** | N | % | N | % | N | % | N | % | **Sign** |
| Less than 5 km | 6 | 30.0% | 11 | 40.7% | 23 | 38.3% | 13 | 39.4% | |
| 5 km – 10 km | 2 | 10.0% | 4 | 14.8% | 13 | 21.7% | 4 | 12.1% | |
| 11 km – 20 km | 3 | 15.0% | 3 | 11.1% | 0 | 0.0% | 2 | 6.1% | |
| 21 km – 40 km | 2 | 10.0% | 2 | 7.4% | 6 | 10.0% | 3 | 9.1% | |
| Over 40 km | 2 | 10.0% | 2 | 7.4% | 11 | 18.3% | 4 | 12.1% | |
| Other | 5 | 25.0% | 5 | 18.5% | 7 | 11.7% | 7 | 21.2% | |
| **Total** | **20** | **100%** | **27** | **100%** | **60** | **100%** | **33** | **100%** | |

* Table includes multiple responses

As shown in Table 43, the majority of respondents in each of the four gambler sub-types reported traveling less than 5 km to play VLTs. In the response category "over 40 km," respondents were more likely to be moderate-risk (18.3%) or problem (12.1%) gamblers.

### Characteristics of VLT Play

To ascertain VLT playing habits, respondents were asked if they usually played the same VLT and whether they usually played more than one VLT at a time. As illustrated in Table 44, across all gambler sub-types, over 75% of respondents were not particular about playing the same VLT. Respondents who usually played the same VLT were more likely to be problem (24.4%) or moderate-risk (22.2%) gamblers.

## TABLE 44
## VLT Play by Gambler Sub-type

| Alberta VLT Study | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | **Sign** |
| **Do you usually play the same VLT? (N=206)** | | | | | | | | | |
| Yes | 4 | 10.3% | 5 | 12.2% | 18 | 22.2% | 11 | 24.4% | |
| No | 34 | 87.2% | 36 | 87.8% | 62 | 76.5% | 34 | 75.6% | |
| No response | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Total** | **39** | **100%** | **41** | **100%** | **81** | **100%** | **45** | **100%** | |
| **How often do you play more than one VLT machine at a time? (N=206)** | | | | | | | | | * |
| Never | 34 | 87.2% | 35 | 85.4% | 61 | 75.3% | 22 | 48.9% | |
| Sometimes | 3 | 7.7% | 6 | 14.6% | 15 | 18.5% | 22 | 48.9% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 3 | 3.7% | 1 | 2.2% | |
| Almost always | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| No response | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Total** | **39** | **100%** | **41** | **100%** | **81** | **100%** | **45** | **100%** | |

*Statistically significant ($p \leq .05$)

Table 44 also depicts the extent to which respondents played more than one VLT at a time. In the non-problem, low-risk and moderate-risk gambler sub-types, over 75%

of respondents said they "never" played more than one VLT at a time. On the other hand, over 50% of the problem gambling cohort reported playing more than one VLT at a time.

## Time of Day Respondents Play VLTs

In Table 45, data are presented on the time of day respondents usually played VLTs. Table 45 indicates that most respondents in the four gambler sub-types played VLTs during afternoon or evening hours. Of note in the response category "8am – 12pm," when the VLT venues first open and during the lunch hour, problem (17.1%) and moderate-risk (14.8%) gamblers were more likely than non-problem (9.1%) and low-risk (9.1%) gamblers to play during this time.

**TABLE 45**
**Time of Day of VLT Play by Gambler Sub-Type**

| Alberta VLT Study (N=162) | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| **Time of day** | N | % | N | % | N | % | N | % | **Sign** |
| 8am – 12pm | 3 | 9.1% | 3 | 9.1% | 9 | 14.8% | 6 | 17.1% | |
| 1pm – 6pm | 15 | 45.5% | 12 | 36.4% | 33 | 54.1% | 19 | 54.3% | |
| 7pm – 12am | 13 | 39.4% | 18 | 54.5% | 19 | 31.1% | 8 | 22.9% | |
| 1am – 2am | 2 | 6.1% | 0 | 0.0% | 0 | 0.0 | 2 | 5.7% | |
| **Total** | **33** | **100%** | **33** | **100%** | **61** | **100%** | **35** | **100%** | |

Respondents were also asked why they played VLTs at this particular time of day. Most reported that this time was "most convenient for them," "a time to relax," "relieve boredom," or "a stopping off place after work." These responses were similar across all gambler sub-types. Interestingly, the majority of the handful reporting--"it is the best time to win"-- were problem gamblers. Also, two respondents, both of whom were problem gamblers reported, "when my husband is at work."

## Controlling VLT Play

In this section, findings on respondents' ability to control their VLT play in regard to expenditures, time spent and gambling behavior are presented.

Whether or not respondents set spending and/or time limits when playing VLTs are presented in Table 46. Regarding spending limits, 156 of the 206 respondents reported usually setting spending limits. Problem gamblers (44.4%) were less likely to set spending limits; in all three of the other gambler sub-types over 80% of respondents reported setting spending limits for their VLT play.

## TABLE 46
## Spending and Time Limits When Playing VLTs by Gambler Sub-Type

| Alberta VLT Study | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | Sign |
| **Set a dollar limit (N=206)** | | | | | | | | | ** |
| Yes | 34 | 87.2% | 34 | 82.9% | 68 | 84.0% | 20 | 44.4% | |
| No | 5 | 12.8% | 7 | 17.1% | 13 | 16.0% | 25 | 55.6% | |
| **How often dollar limit exceeded (N=156)** | | | | | | | | | ** |
| Never | 19 | 55.9% | 9 | 26.5% | 7 | 10.3% | 1 | 5.0% | |
| Sometimes | 15 | 44.1% | 24 | 70.6% | 59 | 86.8% | 8 | 40.0% | |
| Most of the time | 0 | 0.0% | 1 | 2.9% | 2 | 2.9% | 6 | 30.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 25.0% | |
| **Set a time limit (N=206)** | | | | | | | | | |
| Yes | 8 | 20.5% | 4 | 9.8% | 18 | 22.2% | 6 | 13.3% | |
| No | 31 | 79.5% | 37 | 90.2% | 63 | 77.8% | 38 | 84.4% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| **How often time allocated exceeded (N=36)** | | | | | | | | | |
| Never | 4 | 50.0% | 1 | 25.0% | 3 | 16.7% | 0 | 0.0% | |
| Sometimes | 4 | 50.0% | 3 | 75.0% | 14 | 77.8% | 4 | 66.7% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 1 | 5.6% | 0 | 0.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 33.3% | |

** Statistically significant ($\leq$.01)

Respondents who reported setting spending limits were further asked how often they exceeded these limits. Table 46 reveals that non-problem (55.9%) and low-risk (26.5%) gamblers were most likely not to exceed their spending limits, compared to moderate-risk (10.3%) and problem (5%) gamblers. Most respondents in all four gambler sub-types who did exceed their spending limits endorsed the "sometimes" response category; however, a significant number of problem gamblers endorsed the "most of the time" (30.0%) and "almost always" (25%) response choices.

Table 46 also registers whether time limits for playing VLTs were set by respondents. In contrast to VLT spending limits, the majority of respondents reported not setting time limits for their VLT play; only 36 of 206 respondents said they set time limits for their VLT play, and of those, there were no significant differences between the four gambler sub-types.

Of those respondents who set time limits for their VLT play, 100% of problem, 83.4% moderate-risk and 75% of low-risk gamblers reported exceeding their self-imposed guidelines.

## 5.4 Frequency/Duration of VLT Play and Expenditures by Gambler Sub-Type

### Frequency of Play

In this section, we present findings for VLT play frequency by gambler sub-type. Table 47 shows a relationship between gambler sub-type and frequency of play. In the Alberta VLT study, the majority of non-problem gamblers (48.9%) reported playing a VLT less than once a week, compared with low-risk (36.6%), moderate-risk (40.7%) and problem (31%) gamblers. Only a small group of respondents in each gambler sub-type reported playing VLTs on a "daily" basis.

**TABLE 47**
**Frequency of VLT Play by Gambler Sub-Type**

| Frequency | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| Daily | 1 | 2.6% | 2 | 4.9% | 2 | 2.5% | 2 | 4.4% | |
| 2 to 6 times/week | 10 | 25.6% | 15 | 36.6% | 25 | 30.9% | 15 | 33.3% | |
| About once/week | 9 | 23.1% | 9 | 22.0% | 21 | 25.9% | 14 | 31.1% | |
| 2 to 3 times per month | 4 | 10.3% | 7 | 17.1% | 23 | 28.4% | 11 | 24.4% | |
| About once/month | 8 | 20.5% | 4 | 9.8% | 6 | 7.4% | 2 | 4.4% | |
| Between 6-11 times/year | 4 | 10.3% | 3 | 7.3% | 3 | 3.7% | 1 | 2.2% | |
| Between 1-5 times/year | 3 | 7.7% | 1 | 2.4% | 1 | 1.2% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Daily | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |
| 2 to 6 times/week | 1 | 0.7% | 2 | 3.6% | 3 | 9.4% | 3 | 21.4% | |
| About once/week | 3 | 2.1% | 3 | 5.5% | 8 | 25.0% | 4 | 28.6% | |
| 2 to 3 times per month | 9 | 6.4% | 13 | 23.6% | 12 | 37.5% | 3 | 21.4% | |
| About once/month | 28 | 19.9% | 14 | 25.5% | 3 | 9.4% | 0 | 0.0% | |
| Between 6-11 times/year | 15 | 10.6% | 5 | 9.1% | 0 | 0.0% | 2 | 14.3% | |
| Between 1-5 times/year | 82 | 58.2% | 18 | 32.7% | 6 | 18.8% | 1 | 7.1% | |
| No response | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |

** Statistically significant (≤.01)

### Duration

In Table 48, findings pertaining to the time respondents spent playing VLTs during a typical session are displayed. In the Alberta VLT study most non-problem and low-risk gamblers reported usually playing VLTs for less than one hour per session, with 41% of non-problem and 22% of low-risk gamblers indicating that a normal VLT session was "less than 30 minutes." In contrast, problem (39.5%) and moderate-risk (29.3%) gamblers reported normal VLT sessions being between "61 and 240 minutes." In addition, 8.9% of problem gamblers reported usually playing VLTs for "over 4 hours," as opposed to 0% of non-problem, 0% of low-risk, and 1.2% of moderate-risk gamblers.

## TABLE 48
## Duration of VLT Play by Gambler Sub-type

| Duration | Non-Problem Gamblers |  | Low-risk Gamblers |  | Moderate-risk Gamblers |  | Problem Gamblers |  | Sign |
|---|---|---|---|---|---|---|---|---|---|
|  | N | % | N | % | N | % | N | % |  |
| **Alberta VLT Study (N=206)** |  |  |  |  |  |  |  |  | ** |
| Under 20 minutes | 8 | 20.5% | 5 | 12.2% | 6 | 7.4% | 0 | 0.0% |  |
| 20-30 minutes | 8 | 20.5% | 4 | 9.8% | 16 | 19.8% | 3 | 6.7% |  |
| 31-60 minutes | 13 | 33.3% | 17 | 41.5% | 24 | 29.6% | 7 | 15.6% |  |
| 61-120 minutes | 5 | 12.8% | 10 | 24.4% | 24 | 29.6% | 19 | 42.2% |  |
| 121-240 minutes | 2 | 5.1% | 2 | 4.9% | 8 | 9.9% | 7 | 15.6% |  |
| Over 4 hours | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 4 | 8.9% |  |
| Don't know | 3 | 7.7% | 3 | 7.3% | 2 | 2.5% | 5 | 11.1% |  |
| **Alberta CPGI Study-VLT Players(N=242)** |  |  |  |  |  |  |  |  | ** |
| Under 20 minutes | 64 | 45.4% | 16 | 29.1% | 5 | 15.6% | 1 | 7.1% |  |
| 20-30 minutes | 16 | 11.3% | 4 | 7.3% | 0 | 0.0% | 1 | 7.1% |  |
| 31-60 minutes | 39 | 27.7% | 27 | 49.1% | 13 | 40.6% | 0 | 0.0% |  |
| 61-120 minutes | 13 | 9.2% | 4 | 7.3% | 8 | 25.0% | 1 | 7.1% |  |
| 121-240 minutes | 5 | 3.5% | 2 | 3.6% | 5 | 15.6% | 2 | 14.3% |  |
| Over 4 hours | 1 | 0.7% | 2 | 3.6% | 1 | 3.1% | 9 | 64.3% |  |
| Don't know | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |  |
| No response | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |  |

** Statistically significant (≤.01)

In addition to the time usually spent in a VLT session, respondents in the Alberta VLT Study were asked about the longest amount of time they ever spent in a single VLT session. Table 49 shows that non-problem (38.5%) and low-risk (39%) gamblers reported the longest amount of time spent in a single VLT session as "60-120 minutes." A further significant percentage of non-problem (28.2%) and low-risk (34.1%) gamblers reported their longest ever VLT sessions in the "121-240 minute range." The highest percentage of moderate-risk (40.7%) gamblers reported a longest VLT session between "121-240 minutes," while nearly half (48.9%) the problem gamblers reported single VLT sessions of "over 6 hours."

## TABLE 49
## Longest Time Spent Playing VLTs in One Session by Gambler Sub-Type

| **Alberta VLT Study (N=206)** | Non-Problem Gamblers |  | Low-risk Gamblers |  | Moderate-risk Gamblers |  | Problem Gamblers |  |  |
|---|---|---|---|---|---|---|---|---|---|
| **Longest Time Spent in one VLT session** | N | % | N | % | N | % | N | % | Sign |
| Under 60 minutes | 8 | 20.5% | 2 | 4.9% | 3 | 3.7% | 0 | 0.0% | ** |
| 60-120 minutes | 15 | 38.5% | 16 | 39.0% | 17 | 21.0% | 3 | 6.7% |  |
| 121-240 minutes | 11 | 28.2% | 14 | 34.1% | 33 | 40.7% | 9 | 20.0% |  |
| 241-360 minutes | 3 | 7.7% | 4 | 9.8% | 17 | 21.0% | 11 | 24.4% |  |
| Over 6 hours | 1 | 2.6% | 4 | 9.8% | 11 | 13.6% | 22 | 48.9% |  |
| Don't know | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 0 | 0.0% |  |
| No response | 1 | 2.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% |  |

** Statistically significant (≤.01)

Expenditure

Respondents' VLT expenditures are examined separately because the questions posed were slightly different in the two studies. The instrument used with the Alberta CPGI Study– VLT Players group, asked how much respondents spent on VLTs in a typical month (not including winnings) and the largest amount ever spent on VLTs in one day (not including winnings). In the Alberta VLT Study, respondents were asked, how much was typically spent on VLTs each time they played (not including winnings) and what the most money they had ever won and lost was on VLTs in a single day.

Table 50 shows that most non-problem and low-risk gamblers in the Alberta CPGI Study-VLT Players study reported usual VLT expenditures of less than $50 per month. The two largest groups of moderate-risk gamblers reported average monthly VLT expenditures of: "$100-$199" (28.1%) and "$10-$49" (21.9%), with a small segment of this cohort (12.5%) reporting monthly VLT expenditures between $300 and $500. In contrast to the other three gambler sub-types, 78.6% of the problem gamblers reported average VLT expenditures over $300 per month, with 50% of this group spending over $500 monthly on VLT play. Of those problem gamblers reporting VLT expenditures over $500 per month, the majority (71.4%) indicated normal monthly VLT expenditures in the $1500 to $4000 range.

## TABLE 50
## VLT Monthly Expenditures and Largest Amount Spent on VLTs in One Day by Gambler Sub-Type

| **Alberta CPGI Study- VLT Players** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | **Sign** |
| **Monthly VLT Expenditures (not including winnings) (N=242)** | | | | | | | | | ** |
| Under $10 | 53 | 37.6% | 16 | 29.1% | 2 | 6.3% | 0 | 0.0% | |
| $10-$49 | 62 | 44.0% | 17 | 30.9% | 7 | 21.9% | 2 | 14.3% | |
| $50-$99 | 12 | 8.5% | 5 | 9.1% | 4 | 12.5% | 0 | 0.0% | |
| $100-$199 | 8 | 5.7% | 6 | 10.9% | 9 | 28.1% | 0 | 0.0% | |
| $200-$299 | 1 | 0.7% | 3 | 5.5% | 3 | 9.4% | 1 | 7.1% | |
| $300-$500 | 0 | 0.0% | 3 | 5.5% | 4 | 12.5% | 4 | 28.6% | |
| Over $500 | 0 | 0.0% | 1 | 1.8% | 2 | 6.3% | 7 | 50.0% | |
| Don't know | 2 | 1.4% | 2 | 3.6% | 1 | 3.1% | 0 | 0.0% | |
| No response | 3 | 2.1% | 2 | 3.6% | 0 | 0.0% | 0 | 0.0% | |
| **Largest Amount Spent on VLTs in a Single Day (not including winnings) (N=242)** | | | | | | | | | ** |
| Under $10 | 18 | 12.8% | 7 | 12.7% | 2 | 6.3% | 0 | 0.0% | |
| $10-$49 | 97 | 68.8% | 25 | 45.5% | 7 | 21.9% | 2 | 14.3% | |
| $50-$99 | 10 | 7.1% | 10 | 18.2% | 6 | 18.8% | 0 | 0.0% | |
| $100-$199 | 10 | 7.1% | 5 | 9.1% | 10 | 31.3% | 0 | 0.0% | |
| $200-$299 | 3 | 2.1% | 5 | 9.1% | 1 | 3.1% | 1 | 7.1% | |
| $300-$500 | 0 | 0.0% | 3 | 5.5% | 3 | 9.4% | 6 | 42.9% | |
| Over $500 | 0 | 0.0% | 0 | 0.0% | 3 | 9.4% | 5 | 35.7% | |
| Don't know | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| No response | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |

** Statistically significant (≤.01)

In Table 50, information about the Alberta CPGI Study-VLT Players respondents' largest single day VLT expenditures are also presented. Non-problem and low-risk gamblers typically reported the most they spent on VLTs in a single day was less than $50. The majority of moderate-risk gamblers (50.1%) claimed their largest single day VLT expenditure was between $50 and $199. Problem gamblers, however, reported largest single day VLT expenditures in the "$300-$500" (42.9%) and "over $500" (35.7%) categories. All problem gamblers reporting "over $500" said their largest single day VLT expenditures fell in the $700 to $2,000 range.

Respondents in the Alberta VLT Study group were asked about their normal VLT expenditures per session and the most money they ever won and lost in a single day playing VLTs. The data for these three questions are presented in Table 51.

Table 51 shows most non-problem (51.3%); low-risk (41.5%) and moderate-risk (30.9%) gamblers usually spent in the $10-$49 range per VLT session. Significant numbers of the moderate-risk gambler cohort (23.5%) reported normal VLT session expenditures of "$50-99" and "$100-$199." Most problem gamblers claimed normal VLT session expenditures of "$100-$199" (31.1%) and "$200-$299" (28.9%). The "over $500" response category was endorsed only by problem gamblers; four respondents reported routine expenditures of between $550 and $600 per VLT session.

Table 51 displays the largest amount of money won by respondents on VLTs in a single day. In all four gambler sub-types, the majority endorsed the "$1,000-$1999" and "$500-$999" response categories.

The third question explored in Table 51, is the largest amount of money respondents lost in one day playing VLTs. Two findings of note are: 53.8% of the non-problem gambler cohort reported largest single day VLT losses of "under $100," and 40% of problem gamblers reported largest single day VLT losses in the "$1,000-$1,999" range. An additional 8.9% of this problem gambler cohort cited losses of "over $3,000" in a single day.

**TABLE 51**
**Expenditure per VLT Session, Largest Amount Won and Lost in a Single Day by Gambler Sub-Type**

| **Alberta VLT Study** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| **$ Spent per VLT Session (not counting winnings) (N=206)** | | | | | | | | | ** |
| Under $10 | 6 | 15.4% | 2 | 4.9% | 1 | 1.2% | 1 | 2.2% | |
| $10-$49 | 20 | 51.3% | 17 | 41.5% | 25 | 30.9% | 2 | 4.4% | |
| $50-$99 | 8 | 20.5% | 8 | 19.5% | 19 | 23.5% | 2 | 4.4% | |
| $100-$199 | 4 | 10.3% | 7 | 17.1% | 22 | 27.2% | 14 | 31.1% | |
| $200-$299 | 0 | 0.0% | 7 | 17.1% | 9 | 11.1% | 13 | 28.9% | |
| $300-$500 | 1 | 2.6% | 0 | 0.0% | 3 | 3.7% | 8 | 17.8% | |
| Over $500 | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 4 | 8.9% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Largest Amount Won in a Single Day (N=206)** | | | | | | | | | |
| $0 | 2 | 5.1% | 0 | 0.0% | 2 | 2.5% | 0 | 0.0% | |
| Under $100 | 2 | 5.1% | 3 | 7.3% | 0 | 0.0% | 0 | 0.0% | |
| $100-$199 | 1 | 2.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| $200-$299 | 3 | 7.7% | 3 | 7.3% | 6 | 7.4% | 3 | 6.7% | |
| $300-$399 | 0 | 0.0% | 1 | 2.4% | 7 | 8.6% | 0 | 0.0% | |
| $400-$499 | 2 | 5.1% | 2 | 4.9% | 1 | 1.2% | 1 | 2.2% | |
| $500-$999 | 7 | 17.9% | 10 | 24.4% | 20 | 24.7% | 8 | 17.8% | |
| $1000-$1999 | 15 | 38.5% | 13 | 31.7% | 32 | 39.5% | 25 | 55.6% | |
| $2000-$2999 | 4 | 10.3% | 5 | 12.2% | 9 | 11.1% | 5 | 11.1% | |
| Over $3000 | 2 | 5.1% | 4 | 9.8% | 4 | 4.9% | 3 | 6.7% | |
| No response | 1 | 2.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| **Largest Amount Lost in a Single Day (N=206)** | | | | | | | | | ** |
| Under $100 | 21 | 53.8% | 12 | 29.3% | 10 | 12.3% | 1 | 2.2% | |
| $100-$199 | 6 | 15.4% | 10 | 24.4% | 15 | 18.5% | 4 | 8.9% | |
| $200-$299 | 6 | 15.4% | 8 | 19.5% | 19 | 23.5% | 2 | 4.4% | |
| $300-$399 | 1 | 2.6% | 3 | 7.3% | 7 | 8.6% | 3 | 6.7% | |
| $400-$499 | 2 | 5.1% | 2 | 4.9% | 5 | 6.2% | 1 | 2.2% | |
| $500-$999 | 2 | 5.1% | 4 | 9.8% | 17 | 21.0% | 12 | 26.7% | |
| $1000-$1999 | 0 | 0.0% | 1 | 2.4% | 5 | 6.2% | 18 | 40.0% | |
| $2000-$2999 | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| Over $3000 | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 4 | 8.9% | |
| No response | 1 | 2.6% | 1 | 2.4% | 1 | 1.2% | 0 | 0.0% | |

** Statistically significant (≤.01)

VLT Venue Automated Teller Machine (ATM) Usage

Finally, with respect to VLT expenditures, respondents in the Alberta VLT Study were asked whether, and to what extent, they used Automated Teller Machines (ATMs) at VLT venues to get money to play the VLTs.

## TABLE 52
## VLT Venue Automated Teller Machine (ATM) Usage by Gambler Sub-Type

| **Alberta VLT Study (N=206)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| **VLT Venue ATM Usage** | N | % | N | % | N | % | N | % | **Sign** |
| Almost always | 4 | 10.3% | 5 | 12.2% | 11 | 13.6% | 14 | 31.1% | ** |
| Most of the time | 3 | 7.7% | 3 | 7.3% | 11 | 13.6% | 11 | 24.4% | |
| Sometimes | 4 | 10.3% | 14 | 34.1% | 37 | 45.7% | 14 | 31.1% | |
| Never | 28 | 71.8% | 19 | 46.3% | 22 | 27.2% | 6 | 13.3% | |

** Statistically significant (≤.01)

Table 52 identifies significant differences between the four gambler sub-types with respect to VLT venue ATM usage. In particular, there is a strong correlation between on-site ATM usage and problem gambling severity with: non-problem (71.8%), low-risk (46.3%), moderate-risk (27.2%), and problem (13.3%) gamblers in the "never" response category. Another significant difference is 31.3% of problem gamblers reported using on-site ATMs "almost always" whereas only 13.6% moderate-risk, 12.2% low-risk, and 10.3% non-problem gamblers endorsed this response category. It should also be noted that respondents who chose the "almost always" response category reported using on-site ATMs at least once per VLT session.

### 5.5 Motivation for VLT Play by Gambler Sub-Type

In this section, the reasons respondents play VLTs and whom they play with are examined. With respect to motivations for playing VLTs, respondents in the two study groups were asked the question in different contexts. Alberta CPGI Study-VLT Players respondents were asked their reasons for playing VLTs, while Alberta VLT Study respondents were asked to indicate what attracts them to VLTs. Consequently, responses from the two study groups are treated separately.

Information about why respondents in the Alberta CPGI Study-VLT Players engaged in VLT play is presented in Table 53. The majority of all four gambler sub-types played VLTs for entertainment and fun or to win money. Interesting in these findings is that only problem (14.3%) and moderate-risk (3.1%) gamblers endorsed the response category "to distract yourself from everyday problems."

**TABLE 53**
**Reasons for Playing VLTs by Gambler Sub-Type**

| **Alberta CPGI Study-VLT Players (N=242)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reasons for Playing VLTs** | N | % | N | % | N | % | N | % | **Sign** |
| In order to do things with friends | 6 | 4.3% | 4 | 7.3% | 0 | 0.0% | 0 | 0.0% | |
| For excitement or as a challenge | 4 | 2.8% | 1 | 1.8% | 4 | 12.5% | 0 | 0.0% | |
| As a hobby | 0 | 0.0% | 1 | 1.8% | 0 | 0.0% | 0 | 0.0% | |
| To win money | 30 | 21.3% | 15 | 27.3% | 11 | 34.4% | 2 | 14.3% | |
| Out of curiosity | 7 | 5.0% | 1 | 1.8% | 1 | 3.1% | 0 | 0.0% | |
| For entertainment or fun | 63 | 44.7% | 18 | 32.7% | 7 | 21.9% | 4 | 28.6% | |
| To distract yourself from everyday problems | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 2 | 14.3% | |
| Because you're good at it | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| Other | 19 | 13.5% | 11 | 20.0% | 5 | 15.6% | 4 | 28.6% | |
| More than one reason | 7 | 5.0% | 4 | 7.3% | 3 | 9.4% | 2 | 14.3% | |
| Don't know | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| No response | 2 | 1.4% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |

Respondents from the Alberta VLT Study group were asked to describe what attracted them to VLTs. The findings depicted in Table 54 show that the majority in all four gambler sub-types cited "winning" as their primary attraction to the VLTs. What is interesting amongst this group, as opposed to their counterparts in the Alberta CPGI Study – VLT Players, is that the second most attractive feature about playing VLTs was to pass time and relieve boredom; again, this finding is consistent amongst all four gambler sub-types. Also, problem gamblers (17.8%) in the VLT study said they were attracted to the machines because of "excitement/thrill/rush"; whereas, less than 7% of respondents in the other three gambler sub-types endorsed this response category.

**TABLE 54**
**Attraction to VLT Play by Gambler Sub-Type**

| **Alberta VLT Study (N=208)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Attraction to Play VLTs** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| Enjoyment/fun | 4 | 10.3% | 5 | 11.4% | 8 | 10.0% | 1 | 2.2% | |
| Venue atmosphere | 0 | 0.0% | 1 | 2.3% | 6 | 7.5% | 2 | 4.4% | |
| Winning | 13 | 33.3% | 11 | 25.0% | 30 | 37.5% | 17 | 37.8% | |
| Challenge | 1 | 2.6% | 1 | 2.3% | 1 | 1.3% | 0 | 0.0% | |
| Excitement/thrill/rush | 2 | 5.1% | 3 | 6.8% | 3 | 3.8% | 8 | 17.8% | |
| Social outing | 0 | 0.0% | 0 | 0.0% | 1 | 1.3% | 0 | 0.0% | |
| Entertainment/leisure | 6 | 15.4% | 5 | 11.4% | 2 | 2.5% | 0 | 0.0% | |
| Pass the time/relieve boredom | 11 | 28.2% | 7 | 15.9% | 14 | 17.5% | 9 | 20.0% | |
| Relaxing/stress relief | 1 | 2.6% | 6 | 13.6% | 6 | 7.5% | 2 | 4.4% | |
| Distraction/escape | 1 | 2.6% | 1 | 2.3% | 2 | 2.5% | 1 | 2.2% | |
| Other specify | 0 | 0.0% | 4 | 9.1% | 7 | 8.8% | 5 | 11.1% | |
| **Total** | **39** | **100%** | **44** | **100%** | **80** | **100%** | **45** | **100%** | |

* Table includes multiple responses

## Co-participants

Another motivational factor for VLT play is whom the person usually plays with and these findings are exhibited in Table 55.

It is apparent in the Alberta VLT study findings displayed in Table 55, that most respondents in all four gambler sub-types played VLTs "alone." However, problem (66.7%) and moderate-risk (51.9%) gamblers were more likely to play "alone" than were low-risk (39%) and non-problem (38.5%) gamblers. Also, the percentage of respondents choosing the response category "with spouse or partner" was highest for non-problem and low-risk gamblers.

In Table 55, it should be noted that respondents in the Alberta VLT Study (patron intercept interviews) all four gambler sub-types endorsed the "alone" response category at a substantially higher rate than did their counterparts in the Alberta CPGI Study– VLT players (telephone interviews).

## TABLE 55
## VLT Co-participants by Gambler Sub-Type

| Co-participants | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| Alone | 15 | 38.5% | 16 | 39.0% | 42 | 51.9% | 30 | 66.7% | |
| With spouse or partner | 11 | 28.2% | 15 | 36.6% | 12 | 14.8% | 8 | 17.8% | |
| With other family members | 3 | 7.7% | 2 | 4.9% | 3 | 3.7% | 1 | 2.2% | |
| With friends or co-workers | 3 | 7.7% | 2 | 4.9% | 13 | 16.0% | 3 | 6.7% | |
| More than one of selections above (specify) | 7 | 17.9% | 6 | 14.6% | 11 | 13.6% | 3 | 6.7% | |
| **Alberta CPGI Study-VLT Players(N=242)** | | | | | | | | | |
| Alone | 33 | 23.4% | 16 | 29.1% | 10 | 31.3% | 7 | 50.0% | |
| With spouse or partner | 35 | 24.8% | 10 | 18.2% | 7 | 21.9% | 3 | 21.4% | |
| With other family members | 8 | 5.7% | 1 | 1.8% | 2 | 6.3% | 0 | 0.0% | |
| With friends or co-workers | 51 | 36.2% | 23 | 41.8% | 8 | 25.0% | 2 | 14.3% | |
| With some other individual/group than above (specify) | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| More than one of selections above (specify) | 10 | 7.1% | 5 | 9.1% | 5 | 15.6% | 2 | 14.3% | |
| No response | 3 | 2.1% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |

### Cognition, Systems, Superstitions and Predictions

In this section, we explore idiosyncratic factors of VLT play including: (1) cognitions about winning; (2) systems for beating VLTs; (3) superstitions and rituals for bringing luck; and (4) perceived ability to predict when VLTs will deliver a big payout. To accomplish this task, a series of questions were posed to the Alberta VLT Study respondents and the findings are presented in Table 56.

In Table 56, findings regarding respondents' beliefs about randomness and the utility of employing systems to beat the VLTs are presented. The first question asked respondents; "After losing on the VLTs many times in a row, are you more likely to win?" Table 56 shows, the majority of respondents in all four gambler sub-types either "disagreed" or "strongly disagreed" with this statement. Of those respondents who endorsed the response categories "agree" or "strongly agree," most were problem (24.4%) or moderate-risk (14.8%) gamblers.

## TABLE 56
## Player Cognition about Winning on VLTs by Gambler Sub-Type

| Alberta VLT Study | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | Sign |
| **After losing on the VLTs many times in a row, you are more likely to win? (N=206)** | | | | | | | | | |
| Strongly agree | 0 | 0.0% | 2 | 4.9% | 2 | 2.5% | 1 | 2.2% | |
| Agree | 3 | 7.7% | 3 | 7.3% | 10 | 12.3% | 10 | 22.2% | |
| Disagree | 26 | 66.7% | 31 | 75.6% | 55 | 67.9% | 28 | 62.2% | |
| Strongly disagree | 7 | 17.9% | 4 | 9.8% | 8 | 9.9% | 6 | 13.3% | |
| Don't know | 3 | 7.7% | 1 | 2.4% | 6 | 7.4% | 0 | 0.0% | |
| **You could win more on the VLTs if you us a certain system or strategy (N=206)** | | | | | | | | | |
| Strongly agree | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |
| Agree | 4 | 10.3% | 6 | 14.6% | 12 | 14.8% | 5 | 11.1% | |
| Disagree | 24 | 61.5% | 27 | 65.9% | 58 | 71.6% | 31 | 68.9% | |
| Strongly disagree | 9 | 23.1% | 7 | 17.1% | 9 | 11.1% | 7 | 15.6% | |
| Don't know | 2 | 5.1% | 1 | 2.4% | 1 | 1.2% | 1 | 2.2% | |

Table 57 shows data on respondents' beliefs about using systems or strategies for playing VLTs that increase their chances to win. The majority of respondents claimed not to have a system for playing VLTs. There are no significant differences among gambler sub-types regarding who either endorsed or did not endorse this item.

## TABLE 57
## VLT Player Systems, Superstitions and Predictability of Big Payouts by Gambler Sub-Type

| Alberta VLT Study | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | Sign |
| **System for playing VLTs (N=206)** | | | | | | | | | |
| Yes | 10 | 25.6% | 14 | 34.1% | 24 | 29.6% | 12 | 26.7% | |
| No | 29 | 74.4% | 27 | 65.9% | 57 | 70.4% | 32 | 71.1% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| **Superstitions or rituals to bring luck (N=206)** | | | | | | | | | |
| Yes | 2 | 5.1% | 3 | 7.3% | 18 | 22.2% | 10 | 22.2% | |
| No | 37 | 94.9% | 38 | 92.7% | 63 | 77.8% | 35 | 77.8% | |
| **Ability to predict when a big VLT payout is coming (N=206)** | | | | | | | | | |
| Yes | 2 | 5.1% | 3 | 7.3% | 11 | 13.6% | 10 | 22.2% | |
| No | 37 | 94.9% | 37 | 90.2% | 70 | 86.4% | 35 | 77.8% | |
| Don't know | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 0 | 0.0% | |

Again, referring to Table 57, information about respondents' superstitious or ritualistic behaviors toward VLT play is revealed. The majority of respondents in all four gambler sub-types reported not having any superstitions or rituals when playing VLTs. Those who admitted to superstitious or ritualistic behaviors were more likely to be moderate-risk (22.2%) and problem (22.2%) gamblers. Responses offered by these gamblers include: "I follow the same pattern as I did when I had a lucky day," and "I play standing up.

Finally in Table 57, responses to the question "Can you predict when a big payout is coming?" are presented. Once again, the majority of respondents in all four gambler sub-types reported being unable to predict "when a big payout is coming." Respondents, who did feel they could predict when a big payout was coming, were more likely to be problem (22.2%) or moderate-risk (13.6%) gamblers.

Other Motivators

Respondents in the Alberta VLT Study group were asked if they played VLTs to win money or build up credits. The intent of this question was to determine whether it was more important for VLT users to "win money" or "stay in action." The majority of respondents (74.8%) said it was more important to win money and this is consistent across all four gambler sub-types.

VLT players "return on investment" is another potential motivating factor explored in this research. To determine respondents' "return on investment" knowledge we asked them what percentage of money put into VLTs goes back to players in the form of winnings. Of the 206 respondents 175, offered to estimate the percentage of money returned to VLT players. Over 65% of these respondents in all four gambler sub-types thought the payout percentage was less than 40%. Interestingly, most low-risk (42.4%), moderate-risk (42.5%), and problem (39.0%) gamblers believed the payout percentage to be less than 20%.

## 5.6 Problem Gambler Behavior, Consequences and Help Seeking by Gambler Sub-Type

In this section, the characteristics and consequences of problem gambling behavior are compared and contrasted across gambler sub-types. The Canadian Problem Gambling Index (CPGI) contains dimensions that examine problem gambling behavior, and the adverse consequences associated with this behavior. Further, as mentioned in the methods chapter, an instrument embedded in the CPGI titled the Problem Gambling Severity Index (PGSI) uses nine items to separate respondents into four gambler sub-types (non-problem, low-risk, moderate-risk and problem gamblers). In the results that follow, the responses to the nine PGSI items, all of which fall within the context of problem gambling behaviors and the consequences of those behaviors, amongst the two study groups are examined. In addition, three non-scored CPGI items and two items exclusive to the Alberta VLT Study that assess control of gambling behavior and personal crises that occur while playing VLTs are presented.

Problem Gambling Behavior

In this section, five problem gambling behaviors are examined, including (1) loss of control; (2) motivation; (3) chasing; (4) borrowing; and (5) lying. Within these five variables, seven problem gambling behavior indicators are presented, and the following four indicators are included in the nine Problem Gambling Severity Index (PGSI) scoring items, which determines gambler sub-type (the other five PGSI items are reported in the sections on "consequences" and "problem recognition").

1. How often have you bet more than you could really afford to lose?
2. How often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
3. How often have you gone back another day to try and win back the money you lost?
4. How often have you borrowed money or sold anything to get money to gamble?

In the findings that follow, we look at the four gambler sub-types in the context of these four PGSI scoring items and three non-scored Canadian Problem Gambling Index (CPGI) items that pertain to problem gambling behavior.

Loss of Self-Control

Displayed in Table 58 are responses to the question "How often have you bet more than you could really afford to lose?" As this is a PGSI scoring item, no non-problem gamblers endorsed this item.

**TABLE 58**
**Bet More than Could Really Afford to Lose by Gambler Sub-Type**

| Bet more than could afford | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 34 | 82.9% | 25 | 30.9% | 4 | 8.9% | |
| Sometimes | 0 | 0.0% | 5 | 12.2% | 51 | 63.0% | 15 | 33.3% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 9 | 20.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 4 | 4.9% | 16 | 35.6% | |
| Don't know | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 0 | 0.0% | |
| No response | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 48 | 87.3% | 10 | 31.3% | 2 | 14.3% | |
| Sometimes | 0 | 0.0% | 7 | 12.7% | 16 | 50.0% | 6 | 42.9% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 4 | 12.5% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 2 | 6.3% | 5 | 35.7% | |

** Statistically significant ($\leq .01$)

The findings in Table 58 show that in the Alberta VLT study, 82.9% low-risk; 30.9% moderate-risk; and 8.9% problem gamblers reported "never" spending more money on VLTs than they can really afford to lose. All low-risk gamblers that did spend more money than they could really afford to lose on VLTs did so only "sometimes," as did the majority of moderate-risk gamblers (63%). Although 33.3% of problem gamblers cited spending more than they could really afford to lose "sometimes," many problem gamblers also endorsed the "most of the time" (20%) and "almost always" (35.6%) response categories.

The second loss of control item in Table 59 concerns respondents betting more than they wanted to on VLTs. In the Alberta VLT study findings, 64.1% of non-problem gamblers reported "never" betting more than they wanted to. Of interest here is the response rate on the "sometimes" category for non-problem gamblers is significantly higher in the Alberta VLT Study (35.9%) than in the Alberta CPGI Study-VLT Players group (18.4%). The majority of moderate-risk (63%) gamblers endorsed the "sometimes" response category; whereas the majority of problem gamblers selected either the "most of the time" (20%) or "almost always" (35.6%) response categories.

**TABLE 59**
**Bet or Spent More Money than Wanted to on Gambling by Gambler Sub-Type**

| Bet more than wanted to | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 25 | 64.1% | 15 | 36.6% | 9 | 11.1% | 0 | 0.0% | |
| Sometimes | 14 | 35.9% | 24 | 58.5% | 58 | 71.6% | 16 | 35.6% | |
| Most of the time | 0 | 0.0% | 1 | 2.4% | 8 | 9.9% | 10 | 22.2% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 6 | 7.4% | 18 | 40.0% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| No response | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Player (N=242)** | | | | | | | | | ** |
| Never | 115 | 81.6% | 19 | 34.5% | 3 | 9.4% | 0 | 0.0% | |
| Sometimes | 26 | 18.4% | 36 | 65.5% | 25 | 78.1% | 8 | 57.1% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 3 | 21.4% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 3 | 9.4% | 3 | 21.4% | |

** Statistically significant (≤ .01)

## Motivation

In Table 60, responses to the PGSI item, "Have you needed to gamble with larger amounts of money to get the same feeling of excitement?" are explored. With respect to the three scoring gambler sub-types, in the Alberta VLT study low-risk (87.8%) and moderate-risk (67.9%) gamblers were less likely than problem gamblers (33.3%) to endorse this item. Respondents answering "most of the time" or "almost always" were more likely to be problem rather than low or moderate-risk gamblers.

## TABLE 60
## Gamble with Larger Amounts to Get Same Feeling of Excitement by Gambler Sub-Type

| Gamble with larger amounts for excitement | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 36 | 87.8% | 55 | 67.9% | 15 | 33.3% | |
| Sometimes | 0 | 0.0% | 4 | 9.8% | 20 | 24.7% | 15 | 33.3% | |
| Most of the time | 0 | 0.0% | 1 | 2.4% | 2 | 2.5% | 5 | 11.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 8 | 17.8% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 2 | 4.4% | |
| No response | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 140 | 99.3% | 51 | 92.7% | 20 | 62.5% | 3 | 21.4% | |
| Sometimes | 0 | 0.0% | 4 | 7.3% | 12 | 37.5% | 6 | 42.9% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 21.4% | |
| Don't know | 1 | 0.7% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |

** Statistically significant ($\leq .01$)

### Chasing

A hallmark of problem gambling behavior is "chasing" or returning quickly to the gambling venue to try and recoup losses. It is not surprising to see in Table 61 that in both data sets, over 90% of problem and 60% of moderate-risk gamblers endorsed this item. It is interesting to note that a substantial number of low-risk gambler respondents in the two study groups also reported "chasing" losses; in the Alberta CPGI Study-VLT Players, 38.2% endorsed "chasing" their losses and 14.6% of these cohorts in the Alberta VLT Study reported similarly.

## TABLE 61
## Gone Back Another Day to Try and Win Back Loses by Gambler Sub-Type

| Try to win back loses | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 35 | 85.4% | 33 | 40.7% | 4 | 8.9% | |
| Sometimes | 0 | 0.0% | 6 | 14.6% | 44 | 54.3% | 28 | 62.2% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 7 | 15.6% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 6 | 13.3% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 34 | 61.8% | 11 | 34.4% | 1 | 7.1% | |
| Sometimes | 0 | 0.0% | 21 | 38.2% | 20 | 62.5% | 7 | 50.0% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 5 | 35.7% | |

** Statistically significant ($\leq .01$)

Furthermore, Table 61 data show that on-site problem gamblers were more likely to endorse the response items "most of the time" (15.6%) and "almost always" (13.3%), versus low-risk (0%) and moderate-risk (2.5% and 2.5%) gamblers who endorsed these response categories.

Borrowing

It is well documented in the problem gambling literature that as an individual's problems with gambling increases, so does his/her propensity to borrow money or sell personal items to "stay in action." The information in Table 62 shows that this behavior applied mostly to the problem gambler cohort. In the Alberta VLT study, none of the low-risk and 3.7% of moderate-risk gamblers reported borrowing or selling items to support their gambling behavior; whereas, 37.8% of problem gamblers choose this item, with the majority of this cohort (35.6%) doing so only "sometimes."

**TABLE 62**
**Borrowed Money or Sold Anything to Get Money to Gamble by Gambler Sub-Type**

| Borrowed money or sold anything | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 41 | 100% | 78 | 96.3% | 28 | 62.2% | |
| Sometimes | 0 | 0.0% | 0 | 0.0 | 3 | 3.7% | 16 | 35.6% | |
| Most of the time | 0 | 0.0% | 0 | 0.0 | 0 | 0.0% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 52 | 94.5% | 32 | 100% | 8 | 57.1% | |
| Sometimes | 0 | 0.0% | 3 | 5.5% | 0 | 0.0% | 4 | 28.6% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |

** Statistically significant (≤.01)

Lying

Lying to family members or others to hide one's excessive gambling is another common behavior associated with the progression of a gambling problem. Table 63 indicates that in the Alberta VLT study, only 2.4% of low-risk gamblers reported lying to cover-up their gambling and did so only "sometimes." In contrast, 24.7% of moderate-risk and 68.8% of problem gamblers reported lying about their gambling, with a number of the latter citing "most of the time" (11.1%) and "almost always" (13.3%).

## TABLE 63
## Lied to Family Members or Others to Hide Gambling by Gambler Sub-Type

| Lied to family members or others | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 40 | 97.6% | 61 | 75.3% | 14 | 31.1% | |
| Sometimes | 0 | 0.0% | 1 | 2.4% | 13 | 16.0% | 20 | 44.4% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 5 | 11.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 5 | 6.2% | 6 | 13.3% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 55 | 100% | 25 | 78.1% | 6 | 42.9% | |
| Sometimes | 0 | 0.0% | 0 | 0.0% | 6 | 18.8% | 7 | 50.0% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 0 | 0.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |

** Statistically significant ($\leq .01$)

Control of Gambling Behavior

Respondents from the Alberta VLT Study were asked, "When you play VLTs, do you feel in control or your gambling behavior?" Table 64 denotes that 87.2% of non-problem and 70.7% of low-risk gamblers felt in control of their VLT gambling "almost always," while only 37% of moderate-risk and 2.2% of problem gamblers endorsed this response category. In fact, the majority of problem gamblers reported "never" (48.9%) or only sometimes (37.8%) being in control of their VLT gambling behavior.

## TABLE 64
## Control of Gambling Behavior While Playing VLTs by Gambler Sub-Type

| Alberta VLT Study (N=206) | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| **Control of Gambling Behavior** | N | % | N | % | N | % | N | % | ** |
| Never | 3 | 7.7% | 1 | 2.4% | 9 | 11.1% | 22 | 48.9% | |
| Sometimes | 1 | 2.6% | 5 | 12.2% | 18 | 22.2% | 17 | 37.8% | |
| Most of the time | 1 | 2.6% | 6 | 14.6% | 23 | 28.4% | 4 | 8.9% | |
| Almost always | 34 | 87.2% | 29 | 70.7% | 30 | 37.0% | 1 | 2.2% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |

** Statistically significant ($\leq .01$)

Adverse Consequences

In this section, some adverse consequences associated with problem gambling behavior are presented (i.e. negative health effects, criticism, feelings of guilt, financial problems, and personal crisis). Within the Canadian Problem Gambling Index (CPGI) adverse consequences dimension, two variables distinguish these consequences by personal and social impacts.

As noted in the section on problem gambling behavior, the following four items that identify "adverse consequences" are included in the nine-item Problem Gambling Severity Index (PGSI):

1. Has gambling caused you any health problems, including stress or anxiety?
2. Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
3. Have you felt guilty about the way you gamble or what happens when you gamble?
4. Has your gambling caused any financial problems for you or your household?

### Negative Health Effects

Table 65 data shows a strong link between problem gambling behavior and proneness for developing health problems. As expected, non-problem gamblers reported no gambling related health problems. In the Alberta VLT study, all moderate-risk (14.8%) gamblers endorsing this response item mentioned "sometimes" experiencing gambling related health problems. In contrast to the other three gambler sub-types, the majority of problem gamblers reported experiencing gambling related health problems: "sometimes" (46.7%), "most of the time" (15.6%), or "almost always" (8.9%).

**TABLE 65**
**Health Problems Caused by Gambling,**
**Including Stress or Anxiety by Gambler Sub-Type**

| Health Problems | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 40 | 97.6% | 68 | 84.0% | 13 | 28.9% | |
| Sometimes | 0 | 0.0% | 1 | 2.4% | 12 | 14.8% | 21 | 46.7% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 7 | 15.6% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 4 | 8.9% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 52 | 94.5% | 27 | 84.4% | 6 | 42.9% | |
| Sometimes | 0 | 0.0% | 3 | 5.5% | 5 | 15.6% | 5 | 35.7% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 14.3% | |

** Statistically significant ($\leq$.01)

### Criticism

A tell tale sign that one's gambling behavior is becoming problematic is when others begin to criticize this behavior, whether or not the gambler believes the criticism is justified. Table 66 shows criticism about one's gambling behavior is directly related to the severity of one's gambling problem. Only one quarter of low-risk gamblers (26.8%) endorsed this item, with all reporting being criticized only "sometimes." Although most moderate-risk (35.8%) and problem (40%) VLT players also endorsed the "sometimes" response category, a substantial number in these two groups reported being criticized "most of the time" (problem 20% and moderate-risk 6.2%) or "almost always" (problem 17.8% and moderate-risk 3.7%).

## TABLE 66
## Criticized Betting or Told Have a Gambling Problem by Gambler Sub-Type

| **Criticized betting** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | **Sign** |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 30 | 73.2% | 43 | 53.1% | 10 | 22.2% | |
| Sometimes | 0 | 0.0% | 11 | 26.8% | 29 | 35.8% | 18 | 40.0% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 5 | 6.2% | 9 | 20.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 3 | 3.7% | 8 | 17.8% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 52 | 94.5% | 22 | 68.8% | 7 | 50.0% | |
| Sometimes | 0 | 0.0% | 3 | 5.5% | 9 | 28.1% | 4 | 28.6% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 7.1% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 2 | 14.3% | |

** Statistically significant (≤.01)

It is also noted that more respondents in the low-risk, moderate-risk and problem gambler sub-types in the Alberta VLT Study endorsed this item than did their gambling counterparts in the Alberta CPGI Study-VLT Players; especially amongst the problem gambler sub-type.

### Feelings of Guilt

A guilty feeling about one's gambling behavior, and the frequency with which these feelings occur, are other indicators of a gambling problem. In the information that follows, feelings of guilt in relationship to the four gambler sub-types are examined.

As Table 67 shows, none of the non-problem gamblers reported feeling guilty about the way they gambled or what happens when they gamble. The other three gambler sub-types painted a different picture on this dimension as, in the Alberta VLT study, 58.5% of low-risk; 77.8% moderate-risk; and 95.6% problem gamblers reported feeling guilty about their gambling behavior. Especially noteworthy was that problem gamblers reported feeling this way "almost always" (46.7%) or "most of the time" (24.4%).

### TABLE 67
### Felt Guilty About Gambling or What Happens When Gambling by Gambler Sub-Type

| Felt guilty | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 17 | 41.5% | 18 | 22.2% | 2 | 4.4% | |
| Sometimes | 0 | 0.0% | 24 | 58.5% | 49 | 60.5% | 11 | 24.4% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 11 | 13.6% | 11 | 24.4% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 3 | 3.7% | 21 | 46.7% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 32 | 58.2% | 4 | 12.5% | 0 | 0.0% | |
| Sometimes | 0 | 0.0% | 22 | 40.0% | 17 | 53.1% | 3 | 21.4% | |
| Most of the time | 0 | 0.0% | 1 | 1.8% | 6 | 18.8% | 5 | 35.7% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 5 | 15.6% | 6 | 42.9% | |

** Statistically significant (≤.01)

Financial Problems

Another adverse consequence associated with problem gambling relates to financial difficulties caused by gambling. Table 68 data for the Alberta VLT study indicate that the majority of non-problem (100%), low-risk (95.1%), and moderate-risk (80.2%) gamblers reported not experiencing financial problems as a result of their gambling. In contrast, only 4.4% of problem gamblers reported not having any financial problems because of their gambling. Most of this cohort (46.7%) reported having gambling related financial problems "almost always;" while a lesser, but substantial percentage of problem gamblers endorsed the "most of the time" (24.4%) or "almost always" (13.3%) response categories

### TABLE 68
### Financial Problems Caused by Gambling by Gambler Sub-Type

| Financial problems | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 39 | 95.1% | 65 | 80.2% | 8 | 17.8% | |
| Sometimes | 0 | 0.0% | 2 | 4.9% | 13 | 16.0% | 19 | 42.2% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 11 | 24.4% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 6 | 13.3% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 54 | 98.2% | 20 | 62.5% | 3 | 21.4% | |
| Sometimes | 0 | 0.0% | 1 | 1.8% | 12 | 37.5% | 9 | 64.3% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 2 | 14.3% | |

** Statistically significant (≤.01)

## Personal Crisis While Playing VLTs

In the realm of gambling related personal consequences, Alberta VLT Study respondents were asked, "How often have you felt you were having a personal crisis while playing VLTs?"

Respondents' propensity for experiencing some type of personal crisis while playing VLTs increases in relation to the severity of their gambling problem. Table 69 indicates that none of the Alberta VLT non-problem gamblers reported having a personal crisis while playing VLTs, as opposed to low-risk (14.6%), moderate-risk (22%), and problem gamblers (44.4%) who endorsed this item. Of the three gambler sub-types endorsing this item, the majority in each group reported doing so only "sometimes." Problem gamblers, more so than the other two gambler sub-types, endorsed the "most of the time" (8.9%) and "almost always" (6.7%) response categories.

**TABLE 69**
**Felt Having a Personal Crisis While Playing VLTs by Gambler Sub-Type**

| **Alberta VLT Study (N=206)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | **Sign** |
|---|---|---|---|---|---|---|---|---|---|
| **Personal crisis** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | ** |
| Never | 39 | 100% | 34 | 82.9% | 60 | 74.1% | 16 | 35.6% | |
| Sometimes | 0 | 0.0% | 6 | 14.6% | 18 | 22.2% | 20 | 44.4% | |
| Most of the time | 0 | 0.0% | 1 | 2.4% | 0 | 0.0% | 4 | 8.9% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 6.7% | |
| No response | 0 | 0.0% | 0 | 0.0% | 3 | 3.7% | 2 | 4.4% | |

** Statistically significant (≤.01)

## Problem Recognition

The problem recognition variable investigated in this section looks at respondents' awareness of personal gambling problems. Contained within this variable are two gambling problem recognition indicators, one "Have you felt that you might have a problem with gambling?" is included in the nine-item Problem Gambling Severity Index (PGSI).

First, respondents were asked if they felt they might have a gambling problem. Table 70 depicts respondents' perceptions about whether or not they had a gambling problem and to what extent these perceptions correlated with the four gambler sub-types. In the response category "never," in the Alberta VLT study, 100% of non-problem; 82.9% low-risk; 40.7% moderate-risk; and 4.4% problem gamblers endorsed this response. Of the low-risk gamblers who reported having a gambling problem (17.1%), all endorsed the "sometimes" response category, as did the majority of moderate-risk gamblers (54.3%). In contrast, the majority of problem gamblers reported feeling they have a gambling problem "most of the time" (26.7%) or "almost always" (37.8%).

## TABLE 70
## Felt Might Have a Gambling Problem by Gambler Sub-Type

| Felt gambling problem | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 34 | 82.9% | 33 | 40.7% | 2 | 4.4% | |
| Sometimes | 0 | 0% | 7 | 17.1% | 44 | 54.3% | 13 | 28.9% | |
| Most of the time | 0 | 0% | 0 | 0.0% | 3 | 3.7% | 12 | 26.7% | |
| Almost always | 0 | 0% | 0 | 0.0% | 0 | 0.0% | 17 | 37.8% | |
| No response | 0 | 0% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 50 | 90.9% | 14 | 43.8% | 1 | 7.1% | |
| Sometimes | 0 | 0.0% | 5 | 9.1% | 18 | 56.3% | 6 | 42.9% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 21.4% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 4 | 28.6% | |

** Statistically significant (≤.01)

The second problem recognition indicator is respondents' inability to stop gambling, which was derived from answers to the question "Have you felt like you would like to stop betting money or gambling, but didn't think you could?"

The data for the Alberta VLT study in Table 71 disclose that 100% of non-problem and 90.2% of low-risk gamblers did not see their gambling behavior as an issue; whereas moderate-risk (33.3%) and problem (35.6%) gamblers felt they would like to stop betting money or gambling, but didn't think they could, "sometimes." A significant number of problem gamblers reported feeling this way "most of the time" (33.3%) or "almost always" (13.3%).

## TABLE 71
## Felt Would Like to Stop Betting Money or Gambling But Cannot by Gambler Sub-Type

| Cannot stop gambling | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | ** |
| Never | 39 | 100% | 37 | 90.2% | 47 | 58.0% | 7 | 15.6% | |
| Sometimes | 0 | 0.0% | 4 | 9.8% | 27 | 33.3% | 16 | 35.6% | |
| Most of the time | 0 | 0.0% | 0 | 0.0% | 4 | 4.9% | 15 | 33.3% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 3 | 3.7% | 6 | 13.3% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | ** |
| Never | 141 | 100% | 51 | 92.7% | 21 | 65.6% | 2 | 14.3% | |
| Sometimes | 0 | 0.0% | 3 | 5.5% | 9 | 28.1% | 6 | 42.9% | |
| Most of the time | 0 | 0.0% | 1 | 1.8% | 1 | 3.1% | 2 | 14.3% | |
| Almost always | 0 | 0.0% | 0 | 0.0% | 1 | 3.1% | 4 | 28.6% | |

** Statistically significant (≤.01)

Help Seeking for a VLT Problem

Respondents from the Alberta VLT Study were asked if they had ever sought help for a VLT problem, and if so, where help was sought. Table 72 shows that, while most gamblers did not seek help for a personal gambling problem, problem gamblers (26.7%) were more likely than moderate-risk (1.2%) or low-risk (2.4%) gamblers to have done so.

**TABLE 72**
**Help Sought for a VLT Problem by Gambler Sub-Type**

| **Alberta VLT Study** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | **Sign** |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | |
| **Sought help for a VLT problem (N=206)** | | | | | | | | | ** |
| Yes | 0 | 0.0% | 1 | 2.4% | 1 | 1.2% | 12 | 26.7% | |
| No | 38 | 97.4% | 40 | 97.6% | 79 | 97.5% | 32 | 71.1% | |
| Don't know | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| ***Where help sought (N=16)** | | | | | | | | | |
| AADAC | 0 | 0.0% | 0 | 0.0% | 1 | 100% | 4 | 33.3% | |
| Gamblers Anonymous | 0 | 0.0% | 1 | 100% | 0 | 0.0% | 5 | 41.7% | |
| EAP/Professional Counselor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 3 | 25.0% | |
| Church | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 8.3% | |
| Doctor | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 8.3% | |

** Statistically significant (≤.01)
* Table includes multiple responses

Respondents who reported seeking help for a VLT problem were further queried about where they went for this help. Table 72 shows that problem gamblers sought help for their VLT problem from the following sources: Gamblers Anonymous (41.7%), AADAC (33.3%), EAP/Professional Counselor (25%), church (8.3%), or medical doctor (8.3%).

## 5.7 Problem Gambling Correlates by Gambler Sub-Type

Another section of the Canadian Problem Gambling Index seeks information on variables thought to be associated with problem gambling. In this section, five problem gambling correlates, namely (1) family problems; (2) co-morbidity; (3) relieve pain; (4) stress; and (5) depression are explored. A number of the same questions within these indicators were presented to both study groups; a few items were modified for VLT play only, and as such, pertain just to the Alberta VLT study. Furthermore, one item relating to smoking during VLT play was added to the co-morbidity items in the Alberta VLT study instrument, and responses to this item are presented for this group.

## Family Problems

Table 73 presents data on those respondents who said that members of their family had a gambling and/or substance abuse problem. In the Alberta VLT study, problem gamblers (42.2%) were more likely than moderate-risk (27.2%); low-risk (19.5%) or non-problem (17.9%) gamblers to say they had a family member(s) with a gambling problem. The same held true for family members with a substance abuse problem; problem gamblers (66.7%) endorsed this item to a greater extent than did moderate-risk (63%); low-risk (43.9%) or non-problem (33.3%) gamblers.

**TABLE 73**
**Family Gambling and Substance Abuse Problems by Gambler Sub-Type**

| Family Problems | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| **Gambling problem** | | | | | | | | | |
| No response | 0 | 0.0% | 1 | 2.4% | 1 | 1.2% | 0 | 0.0% | |
| Yes | 7 | 17.9% | 8 | 19.5% | 22 | 27.2% | 19 | 42.2% | |
| No | 32 | 82.1% | 32 | 78.1% | 57 | 70.4% | 26 | 57.8% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Total** | **39** | **100%** | **41** | **100%** | **81** | **100%** | **45** | **100%** | |
| **Alcohol or drug problem** | | | | | | | | | |
| No response | 0 | 0.0% | 2 | 4.9% | 1 | 1.2% | 0 | 0.0% | |
| Yes | 13 | 33.3% | 18 | 43.9% | 51 | 63.0% | 30 | 66.7% | |
| No | 26 | 66.7% | 21 | 51.2% | 28 | 34.6% | 15 | 33.3% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Total** | **39** | **100%** | **41** | **100%** | **81** | **100%** | **45** | **100%** | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | |
| **Gambling problem** | | | | | | | | | |
| Yes | 20 | 14.2% | 12 | 21.8% | 10 | 31.3% | 5 | 35.7% | |
| No | 121 | 85.8% | 43 | 78.2% | 22 | 68.8% | 9 | 64.3% | |
| **Total** | **141** | **100%** | **55** | **100%** | **32** | **100%** | **14** | **100%** | |
| **Alcohol or drug problem** | | | | | | | | | |
| Yes | 62 | 44.0% | 28 | 50.9% | 18 | 56.3% | 10 | 71.4% | |
| No | 79 | 56.0% | 27 | 49.1% | 14 | 43.7% | 4 | 28.6% | |
| **Total** | **141** | **100%** | **55** | **100%** | **32** | **100%** | **14** | **100%** | |

## Co-morbidity

In the Alberta VLT Study, respondents were asked about their propensity for using tobacco, alcohol, or drugs while playing VLTs and whether or not they ever played VLTs while drunk or high. Further, we asked whether or not respondents felt they had an alcohol or drug problem.

Table 74 reveals that the majority of VLT players smoked and drank alcohol/used drugs while playing; however, there was no difference between the four gambler sub-types on these behaviors. A substantial portion of respondents in all four gambler sub-types reported having played VLTs when drunk or high and problem gamblers (48.9%) were more likely than moderate-risk (35.8%), low-risk (29.3%), or non-problem (30.8%) gamblers to have done so.

**TABLE 74**
**Tobacco, Alcohol and Drug Use While Playing VLTs by Gambler Sub-Type**

| Alberta VLT Study (N=206) | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | Sign |
| **Smoke while playing VLTs** | | | | | | | | | |
| Yes | 29 | 74.4 | 28 | 68.3 | 57 | 70.4 | 36 | 80.0 | |
| No | 10 | 25.6 | 13 | 31.7 | 24 | 29.6 | 9 | 20.0 | |
| **Use alcohol or drugs while playing VLTs** | | | | | | | | | |
| Yes | 23 | 59.0 | 27 | 65.9 | 54 | 66.7 | 31 | 68.9 | |
| No | 15 | 38.5 | 14 | 34.1 | 27 | 33.3 | 14 | 31.1 | |
| Don't know | 1 | 2.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | |
| **Played VLTs while drunk or high** | | | | | | | | | |
| Yes | 12 | 30.8 | 12 | 29.3 | 29 | 35.8 | 22 | 48.9 | |
| No | 26 | 66.7 | 29 | 70.7 | 52 | 64.2 | 22 | 48.9 | |
| Don't know | 1 | 2.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | |
| No response | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.2 | |

The last co-morbidity item refers to respondents' perceived alcohol or drug problems. As Table 75 shows, in the Alberta VLT study, problem gamblers (33.3%) were more likely than moderate-risk (21%), low-risk (14.6%), and non-problem (15.4%) gamblers to report a problem with alcohol or drugs. Within these data, an interesting finding is that respondents from the Alberta VLT Study endorsed this item at a much higher rate than did their VLT playing counterparts in the Alberta CPGI study group; for example, 33.3% of problem gamblers in the Alberta VLT Study reported having an alcohol or drug problem as opposed to only 7.1% of this cohort in the Alberta CPGI Study –VLT Players.

**TABLE 75**
**Admit Alcohol/Drug Problem by Gambler Sub-Type**

| Admit Alcohol/Drug Problem | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| Yes | 6 | 15.4% | 6 | 14.6% | 17 | 21.0% | 15 | 33.3% | |
| No | 31 | 79.5% | 35 | 85.4% | 63 | 77.8% | 29 | 64.4% | |
| Don't know | 1 | 2.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| No response | 1 | 2.6% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | |
| Yes | 8 | 5.7% | 5 | 9.1% | 2 | 6.3% | 1 | 7.1% | |
| No | 133 | 94.3% | 50 | 90.9% | 30 | 93.8% | 13 | 92.9% | |

## Relieve Pain

Respondents were asked two questions about coping with painful events in their lives. The first was, "If something painful happened in your life, did you have an urge to play the VLTs?" Table 76 signifies that problem gamblers (37.8%) endorsed this item more so than did low-risk (24.4%) and moderate-risk (13.5%), gamblers.

The second question was, "If something painful happened in your life, did you have the urge to have a drink?" In contrast to the first coping item, a substantial number of respondents from all four gambler sub-types endorsed this item. Again, non-problem gamblers endorsed this item to a lesser extent than did the other three gambler sub-types; however, there were no significant differences among the latter three groups.

**TABLE 76**
**Coping with Painful Events by Gambler Sub-Type**

| **Alberta VLT Study (N=206)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | **Sign** |
| **Urge to play the VLTs if something painful happens** | | | | | | | | | |
| Yes | 0 | 0.0% | 10 | 24.4% | 11 | 13.6% | 17 | 37.8% | |
| No | 38 | 97.4% | 31 | 75.6% | 67 | 82.7% | 26 | 57.8% | |
| Don't know | 1 | 2.6% | 0 | 0.0% | 2 | 2.5% | 2 | 4.4% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Urge to have a drink if something painful happens** | | | | | | | | | |
| Yes | 6 | 15.4% | 15 | 36.6% | 31 | 38.3% | 19 | 42.2% | |
| No | 32 | 82.1% | 26 | 63.4% | 49 | 60.5% | 25 | 55.6% | |
| Don't know | 1 | 2.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 1 | 2.2% | |

## Stress

This section focuses on the concept of stress; specifically, the correlation between respondents who reported being under a doctor's care because of physical or emotional problems brought on by stress and gambler sub-type.

The majority of respondents in the four gambler sub-types reported not being under a doctor's care for physical or emotional problems brought on by stress (Table 77). However, of those respondents who did endorse this item, the Alberta VLT study findings show that, problem (31.1%) and moderate-risk (21%) gamblers were more likely than low-risk (19.5%) and non-problem (12.8%) gamblers to have sought medical attention for stress-related problems.

## TABLE 77
## Under Doctor's Care Because of Physical or Emotional Problems Brought on By Stress by Gambler Sub-Type

| Stress | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| Yes | 5 | 12.8% | 8 | 19.5% | 17 | 21.0% | 14 | 31.1% | |
| No | 34 | 87.2% | 33 | 80.5% | 63 | 77.8% | 31 | 68.9% | |
| No response | 0 | 0.0% | 0 | 0.0% | 1 | 1.2% | 0 | 0.0% | |
| **Alberta CPGI Study-VLT Player (N=242)** | | | | | | | | | |
| Yes | 13 | 9.2% | 7 | 12.7% | 7 | 21.9% | 1 | 7.1% | |
| No | 128 | 90.8% | 48 | 87.3% | 25 | 78.1% | 13 | 92.9% | |

### Depression

Depression is the final problem gambling correlate explored in this research. Respondents in both study groups were asked "If there was ever a time when you felt sad, blue, or depressed for two weeks or more in a row?" A substantial number of respondents in all four gambler sub-types endorsed this item. In the Alberta VLT study, Table 78 shows that, problem gamblers (57.8%) were more likely to have reported feeling sad, blue or depressed for two weeks in a row, as opposed to moderate-risk (34.6%), low-risk (24.4%), or non-problem (17.9%) gamblers.

## TABLE 78
## Felt Sad, Blue or Depressed for Two Weeks or More in a Row by Gambler Sub-Type

| Depression | Non-Problem Gamblers | | Low-risk Gamblers | | Moderate-risk Gamblers | | Problem Gamblers | | Sign |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | |
| **Alberta VLT Study (N=206)** | | | | | | | | | |
| Yes | 7 | 17.9% | 10 | 24.4% | 28 | 34.6% | 26 | 57.8% | |
| No | 32 | 82.1% | 31 | 75.6% | 51 | 63.0% | 18 | 40.0% | |
| Don't know | 0 | 0.0% | 0 | 0.0% | 2 | 2.5% | 0 | 0.0% | |
| No response | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 1 | 2.2% | |
| **Alberta CPGI Study-VLT Players (N=242)** | | | | | | | | | |
| Yes | 37 | 26.2% | 19 | 34.5% | 11 | 34.4% | 6 | 42.9% | |
| No | 104 | 73.8% | 35 | 63.6% | 20 | 62.5% | 8 | 57.1% | |
| Don't know | 0 | 0.0% | 1 | 1.8% | 1 | 3.1% | 0 | 0.0% | |

## 5.8 Other Leisure and Recreation Pursuits of VLT Players by Gambler Sub-Type

This section examines other gambling activities VLT players participated in; the types of leisure and recreation pursuits they enjoyed; the frequency of engaging in these pursuits; and the money spent on these activities.

### Other Gambling Activities

Respondents in the Alberta VLT Study were asked, "Besides VLTs, what other types of gambling activities do you participate in? Table 79 lists these other activities by gambler sub-type. Games at Alberta casinos and casino slots were the most popular "other" gambling activities amongst all four gambler sub-types. Non-problem (18.2%), low-risk (13.0%) and moderate-risk (24.3%) gamblers reported bingo as another gambling activity they participated in; whereas, none of the problem gamblers endorsed this activity.

**TABLE 79**
**Other Gambling Activities by Gambler Sub-Type**

| **Alberta VLT Study (N=98)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Other Gambling Activity** | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| Lottery tickets | 2 | 9.1% | 1 | 4.3% | 3 | 8.1% | 1 | 6.3% | |
| Raffle tickets | 0 | 0.0% | 0 | 0.0% | 1 | 2.7% | 0 | 0.0% | |
| Bingo | 4 | 18.2% | 3 | 13.0% | 9 | 24.3% | 0 | 0.0% | |
| Card or board games | 3 | 13.6% | 1 | 4.3% | 4 | 10.8% | 0 | 0.0% | |
| Casino slots | 3 | 13.6% | 3 | 13.0% | 7 | 18.9% | 2 | 12.5% | |
| Sports Select | 0 | 0.0% | 0 | 0.0% | 0 | 0.0 | 1 | 6.3% | |
| Sports pools | 0 | 0.0% | 0 | 0.0% | 0 | 0.0 | 1 | 6.3% | |
| Sports with bookie | 0 | 0.0% | 0 | 0.0% | 0 | 0.0 | 1 | 6.3% | |
| Horse Races (live or off track) | 2 | 9.1% | 3 | 13.0% | 2 | 5.4% | 4 | 25.0% | |
| Games at Alberta casinos other than coin slots or VLTs | 3 | 13.6% | 6 | 26.1% | 8 | 21.6% | 4 | 25.0% | |
| Games at casinos outside Alberta other than coin slots or VLTs | 2 | 9.1% | 2 | 8.7% | 0 | 0.0% | 1 | 6.3% | |
| Stocks, options, commodities | 1 | 4.5% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| Games of skill (pool, golf, bowling, darts) | 0 | 0.0% | 1 | 4.3% | 0 | 0.0% | 0 | 0.0% | |
| Card games in non-regulated settings | 2 | 9.1% | 3 | 13.0% | 3 | 8.1% | 1 | 6.3% | |
| **Total** | **22** | **100%** | **23** | **100%** | **37** | **100%** | **16** | **100%** | |

*Table includes multiple responses

### Types of Recreation and Leisure Activities/Frequency/Expenditure

The Alberta VLT Study asked about the types of recreation and leisure activities participated in. Table 80 shows the two most reported activity types across all four gambler sub-types were "sports/exercise" and "camping/fishing/hunting/boating." Within these two response categories there were fewer problem gamblers (25.5% and 14.1%) than moderate-risk (37.9% and 14.7%); low-risk (44.8% and 11.9%); and non-problem (30.0% and 20.0%) gamblers who endorsed these responses. Two other notable findings in Table 80 are problem gamblers and moderate-risk gamblers were more likely to report their recreation and leisure activities to be "gambling" or "nothing" than were low-risk and non-problem gamblers.

Regarding the frequency with which the four gambler sub-types participated in recreation and leisure activities, Table 80 data shows no significant differences amongst the four groups. The majority of respondents in all four groups reported participating in these activities at least once per week.

Finally, Table 80 provides respondents annual expenditure estimates on recreation and leisure activities. Again, for the most part, there is not much difference in the amount of money spent on recreation and leisure activities amongst the four gambler sub-types. The lone exception is for problem gamblers (8.8%), who were less likely to spend over $5,000 per year on these activities than were moderate-risk (15.9%); non-problem (20.5%); or low-risk (17.6%) gamblers.

**TABLE 80**
**Recreation and Leisure Activities by Gambler Sub-Type**

| **Alberta VLT Study** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| **Recreation/Leisure Activities (N=307)** | | | | | | | | | |
| Sports/exercise | 18 | 30.0% | 30 | 44.8% | 44 | 37.9% | 16 | 25.0% | |
| Camping/fishing/hunting/boating | 12 | 20.0% | 8 | 11.9% | 17 | 14.7% | 9 | 14.1% | |
| Family activities | 4 | 6.7% | 5 | 7.5% | 3 | 2.6% | 1 | 1.6% | |
| Movies/concerts/sports and cultural events | 0 | 0.0% | 2 | 3.0% | 2 | 1.7% | 2 | 3.1% | |
| Social Outings | 1 | 1.7% | 3 | 4.5% | 5 | 4.3% | 5 | 7.8% | |
| Travel/driving | 3 | 5.0% | 2 | 3.0% | 2 | 1.7% | 0 | 0.0% | |
| Reading/puzzles/videos/cards | 4 | 6.7% | 4 | 6.0% | 9 | 7.8% | 3 | 4.7% | |
| TV/video games/computer | 8 | 13.3% | 5 | 7.5% | 8 | 6.9% | 6 | 9.4% | |
| Arts and crafts/hobbies | 3 | 5.0% | 0 | 0.0% | 8 | 6.9% | 2 | 3.1% | |
| Domestic activities | 4 | 6.7% | 4 | 6.0% | 3 | 2.6% | 5 | 7.8% | |
| Gambling | 0 | 0.0% | 1 | 1.5% | 6 | 5.2% | 5 | 7.8% | |
| Other specify | 3 | 5.0% | 1 | 1.5% | 3 | 2.6% | 2 | 3.1% | |
| Nothing | 0 | 0.0% | 2 | 3.0% | 6 | 5.2% | 8 | 12.5% | |
| **Total** | **60** | **100%** | **67** | **100%** | **116** | **100%** | **64** | **100%** | |
| **Recreation/Leisure Frequency (N=183)** | | | | | | | | | |
| 1-10 times/year | 4 | 11.4% | 1 | 2.6% | 3 | 4.1% | 2 | 5.7% | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 11-20 times/year | 0 | 0.0% | 2 | 5.1% | 1 | 1.4% | 2 | 5.7% | |
| 21-30 times/year | 2 | 5.7% | 1 | 2.6% | 4 | 5.4% | 0 | 0.0% | |
| 31-40 times/year | 0 | 0.0% | 0 | 0.0% | 3 | 4.1% | 0 | 0.0% | |
| 41-50 times/year | 1 | 2.9% | 1 | 2.6% | 2 | 2.7% | 0 | 0.0% | |
| 51 times or more/year | 28 | 80.0% | 34 | 87.2% | 61 | 82.4% | 31 | 88.6% | |
| **Total** | **35** | **100%** | **39** | **100%** | **74** | **100%** | **35** | **100%** | |
| **Recreation/Leisure Annual Expenditure (176)** | | | | | | | | | |
| $0 | 3 | 8.8% | 3 | 7.7% | 10 | 14.5% | 3 | 8.8% | |
| $1-$99/year | 2 | 5.9% | 1 | 2.6% | 2 | 2.9% | 1 | 2.9% | |
| $100-$499/year | 9 | 26.5% | 6 | 15.4% | 9 | 13.0% | 5 | 14.7% | |
| $500-$999/year | 4 | 11.8% | 6 | 15.4% | 13 | 18.8% | 5 | 14.7% | |
| $1000-$1999/year | 2 | 5.9% | 5 | 12.8% | 8 | 11.6% | 9 | 26.5% | |
| $2000-$4999/year | 8 | 23.5% | 10 | 25.6% | 16 | 23.2% | 8 | 23.5% | |
| $5000 or more/year | 6 | 17.6% | 8 | 20.5% | 11 | 15.9% | 3 | 8.8% | |
| **Total** | **34** | **100%** | **39** | **100%** | **69** | **100%** | **34** | **100%** | |

* Table includes multiple responses

## 5.9 Health Status of VLT Players by Gambler Sub-Type

Respondents in the Alberta VLT Study were asked about their current health status and to describe any specific health related conditions they experience.

Table 81 indicates no significant differences among the four gambler sub-types for respondents who reported their current health status to be "average" or "above average." Among those respondents who reported their current health status as "fair" or "poor;" problem (17.7%) and moderate-risk (14.8%) gamblers were more likely than low-risk (9.8%) and non-problem (5.2%) gamblers to endorse these response items.

### TABLE 81
### Health Status and Conditions by Gambler Sub-Type

| **Alberta VLT Study** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| **Health Status (N=206)** | | | | | | | | | |
| Above average | 6 | 15.4% | 7 | 17.1% | 12 | 14.8% | 9 | 20.0% | |
| Average | 31 | 79.5% | 29 | 70.7% | 56 | 69.1% | 28 | 62.2% | |
| Fair | 1 | 2.6% | 2 | 4.9% | 5 | 6.2% | 6 | 13.3% | |
| Poor | 1 | 2.6% | 2 | 4.9% | 7 | 8.6% | 2 | 4.4% | |
| No response | 0 | 0.0% | 1 | 2.4% | 1 | 1.2% | 0 | 0.0% | |
| **Total** | **39** | **100%** | **41** | **100%** | **81** | **100%** | **45** | **100%** | |
| ***Health Conditions (N=220)** | | | | | | | | | |
| None | 32 | 80.0% | 26 | 63.4% | 56 | 61.5% | 30 | 62.5% | |
| Heart Condition | 3 | 7.5% | 3 | 7.3% | 5 | 5.5% | 2 | 4.2% | |
| Respiratory | 0 | 0.0% | 2 | 4.9% | 5 | 5.5% | 1 | 2.1% | |
| Skeletal | 1 | 2.5% | 1 | 2.4% | 5 | 5.5% | 4 | 8.3% | |
| Diabetes | 0 | 0.0% | 1 | 2.4% | 3 | 3.3% | 1 | 2.1% | |
| High Blood Pressure | 0 | 0.0% | 0 | 0.0% | 4 | 4.4% | 2 | 4.2% | |
| High Cholesterol | 0 | 0.0% | 2 | 4.9% | 0 | 0.0% | 0 | 0.0% | |
| Overweight | 1 | 2.5% | 2 | 4.9% | 1 | 1.1% | 0 | 0.0% | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Physical Disability | 2 | 5.0% | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | |
| Other | 1 | 2.5% | 4 | 9.8% | 11 | 12.1% | 8 | 16.7% | |
| **Total** | **40** | **100%** | **41** | **100%** | **91** | **100%** | **48** | **100%** | |

* Table includes multiple responses

Common health conditions reported by the four gambler sub-types are also displayed in Table 81. Non-problem (80.0%), more so than moderate-risk (61.5%); problem (62.5%); and low-risk (63.4%) gamblers reported having no particular health conditions. Of those who did report health conditions, there were no significant differences in the types of conditions they had by gambler sub-type.

### 5.10 Opinions of VLT Players Regarding Impact of VLT Play and Government Policy by Gambler Sub-Type

Alberta VLT Study respondents were asked, "What has VLT playing done for your life?" and, "Do you have any comments for the provincial government regarding VLTs?"

Table 82 lists the most common responses concerning impacts of VLT playing on respondents' lives. According to these data, most of the respondents in the four gambler sub-types suggested that VLT playing has not significantly impacted their lives. In the response category "created problems," there was a substantial difference between problem gamblers (34.0%) and the other three gambler sub-types, non-problem (2.4%); moderate-risk (2.4%) and low-risk (0%) gamblers who endorsed this item. Also interesting is the response category "recreation/ leisure/entertainment;" a higher number of low-risk (30.2%); moderate-risk (23.8%); and non-problem (19.5%) gamblers endorsed this item than did problem gamblers (4.3%).

### TABLE 82
### Impacts of VLTs on Player's Life by Gambler Sub-Type

| **Alberta VLT Study (N=215)** | **Non-Problem Gamblers** | | **Low-risk Gamblers** | | **Moderate-risk Gamblers** | | **Problem Gamblers** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **N** | **%** | **N** | **%** | **Sign** |
| Fun/entertainment/excitement | 2 | 4.9% | 4 | 9.3% | 9 | 10.7% | 4 | 8.5% | |
| Socialize with friends | 1 | 2.4% | 1 | 2.3% | 3 | 3.6% | 0 | 0.0 | |
| Recreation/leisure/entertainment | 8 | 19.5% | 13 | 30.2% | 20 | 23.8% | 2 | 4.3% | |
| Relaxation/stress relief | 2 | 4.9% | 5 | 11.6% | 3 | 3.6% | 1 | 2.1% | |
| Pass time/boredom/something to do | 7 | 17.1% | 6 | 14.0% | 14 | 16.7% | 4 | 8.5% | |
| Cost money | 1 | 2.4% | 0 | 0.0% | 1 | 1.2% | 4 | 8.5% | |
| Created problems | 1 | 2.4% | 0 | 0.0% | 2 | 2.4% | 16 | 34.0% | |
| Other specify | 3 | 7.3% | 0 | 0.0% | 1 | 1.2% | 1 | 2.1% | |
| Nothing | 16 | 39.0% | 14 | 32.6% | 31 | 36.9% | 15 | 31.9% | |
| **Total** | **41** | **100%** | **43** | **100%** | **84** | **100%** | **47** | **100%** | |

* Table includes multiple responses

The second area respondents were asked to comment on was, What, if any, message they would like to send to the provincial government regarding VLTs? Below is a summary of these comments by gambler sub-type:

### Non-problem Gamblers

The majority of suggestions for the provincial government concerned larger VLT payouts (33.3%); the harmful effects VLTs are having on other people (12.8%); and the need to remove VLTs from the community (8.2%). Other offerings from this group included: more money going back into community programs; the too easy accessibility of VLTs; and instituting screen prompts to warn players when they have played too long.

### Low-risk Gamblers

Comments from this group focused mainly on: bigger payouts (24.4%); removing VLTs from the community (17.1%) and the harm done to other people (9.8%). To quote one respondent, "I have lost many friends to death because of VLTs."

### Moderate-risk Gamblers

This group's advice included bigger payouts (32.1%) and removing VLTs from the community (25.9%). With respect to payouts, one respondent offered, "payouts seem to have dropped and the chances of winning are lower." Other areas mentioned were the need for more programs to help addicted gamblers and more profits put back into the community.

### Problem Gamblers

The problem gamblers (57.8%) main message to the government was to remove VLTs from the community. To quote one respondent, "This is an odd way of showing the public you care." Other offerings from this group included larger payouts (13.3%) and, to a lesser extent, more programs for problem gamblers and less access to VLTs.

# CHAPTER SIX
# VLT GAMBLING VENUES

Conducting VLT player intercept interviews in bars and lounges afforded interviewers an opportunity to observe patrons and examine the environment. To guide interviewers' observations, a Venue Information Sheet (Appendix 3) was developed, and findings related to these observations are briefly presented in this chapter.

To this end, VLT player intercept interviews were completed in 86 bars/lounges in 27 towns/cities throughout Alberta, as follows:

**Edmonton Region (31 venues)**
- Calmar (2)
- Edmonton (16)
- Fort Saskatchewan (1)
- Leduc (2)
- Nisku (1)
- Sherwood Park (2)
- Spruce Grove (2)
- St. Albert (5)

**Calgary Region (15 venues)**
- Airdrie (1)
- Calgary (14)

**Northern Alberta (23 venues)**
- Bonnyville (1)
- Fort McMurray (2)
- Grande Prairie (6)
- High Level (2)
- Lac LaBiche (1)
- Lloydminister (4)
- Peace River (3)
- Slave Lake (4)

**Southern Alberta (17 venues)**
- Okotoks (2)
- Blairmore (2)
- Brooks (2)
- Cochrane (3)
- Hanna (1)
- Lethbridge (3)
- Medicine Hat (1)
- Pincher Creek (1)
- Red Deer (2)

The number of interviews completed within the four regions include: (a) Edmonton (N=56); Calgary (N=40); Northern Alberta (N=57); and Southern Alberta (N=53).

As mentioned in the methodology chapter, the aim in selecting the towns/cities and venues for this research was to achieve a fair representation of VLT players across the province. To this end, VLT venues in each of the towns/cities were chosen based on the area of town/city they are located and the perceived demographic profile of their patrons. The 86 VLT venues visited during this study met these criteria in as much as they were well distributed by location (downtown, light industrial, residential) and type of bar/lounge (high end, middle and lower scale hotels; restaurants; and neighborhood pubs).

The specific venue type included:

- Hotel Lounge (24)
- Hotel Pub/Bar/Games Room (19)
- Restaurant Lounge (21)
- Stand-alone Pub/Bar/Lounge (19)
- Casinos (3)

### 6.1 Patrons and VLT Players

Table 83 displays data from the 86 VLT venues pertaining to bar/lounge patrons and VLT player activities during four time periods, when the patron intercept interviews were conducted.

As Table 83 shows, during the first three time periods there were no substantial differences in the number of bar/lounge patrons upon the interviewer's arrival. During these three time periods, 30-50% of venue patrons were playing VLTs. In contrast, the venues visited during the "7 pm – 10 pm" time period show a higher number of patrons in the establishment and a smaller portion (25%) of these patrons playing VLTs. With respect to the total number of patrons playing VLTs, while field interviewers were on site, there were no substantial differences during the four time periods

With respect to VLT gamblers during the four periods, Table 83 shows that between 10 am and 4 pm VLT players were most likely to be between 20 and 60 years of age; while between 4 pm to 7 pm, players observed were between 30 and 50 years of age; and finally, VLT players playing from 7 pm to 10 pm were more likely to be between 20 and 40 years of age.

**TABLE 83**
**Bar/Lounge Patrons and VLT Players by Time of Day**

| Time | Median # of Venues Observed | Median # of VLTS | Median Time at Venue | Median # of Patrons Upon Arrival | Median # of VLT Players Upon Arrival | Median Total # of VLT Players | Description of VLT Players |
|---|---|---|---|---|---|---|---|
| 10 am – 1 pm | 15 | 7 | 1 hr. | 9.5 | 3 | 6 | 20-60 year old male and females |
| 1 pm – 4 pm | 45 | 7 | 1.25 hr. | 10 | 5 | 7 | 20-60 year old male and females |
| 4 pm – 7 pm | 20 | 4.5 | 1.5 hr. | 9 | 4 | 7 | 30-50 year old male and females |
| 7 pm – 10 pm | 8 | 7 | 1 hr. | 20 | 5 | 5.5 | 20-40 year old male and females |

* Note: 2 venues had interviews conducted at two separate times

During the course of the field observations, interviewers were asked to make note of the amount, type and visibility of information about problem gambling aimed at VLT playing patrons. Out of 86 venues visited, 78 (91%) displayed information on problem gambling. The most prominent source of information about problem gambling was AADAC posters. Of the 78 venues that provided problem gambling information, 59 (75.6%) had AADAC posters visibly accessible to VLT players.

## CHAPTER SEVEN
## VLT GAMBLING EXPENDITURES AND COMMUNITY PROFILES

In this chapter we examine the dollar amounts that Albertans spend playing VLTs and the gross VLT revenues generated annually by the Alberta Gaming and Liquor Commission (AGLC).

### 7.1 Distribution of VLT Gambling Revenues by Region

During fiscal year 2000/01, over $2.2 billion in cash-in dollars (not total credits played) was circulated through 5,974 VLTs in 1,268 venues throughout Alberta and, after prizes and retailer commissions were paid, $584 million (approximately $97,000 per VLT machine) flowed into the AGLC administered Lottery Fund.

Table 84 compares the towns/cities that participated in this study by the four provincial regions. VLT venues in northern Alberta ($498,579) generated the highest average yearly sales per VLT followed by Edmonton ($416,688); Calgary ($404,947) and southern Alberta ($332,793).

Table 84 also shows differences for communities with respect to VLT sales and revenues. In the northern Alberta region, for example, the town of High Level had the highest gross annual sales per VLT averaging $728,055, with gross annual revenues per VLT of $201,666; whereas, Pincher Creek in the southern Alberta region produced the lowest gross annual sales per VLT of $234,986 with annual average revenues per VLT of $61,087.

**TABLE 84**
**Average Gross Annual Sales (Cash-In) and Earnings per VLT (2000-01)**

| Cities/Town by Region | Number of VLTs | Number of Venues | Average Cash-In Per VLT | Average Gross Revenue Per VLT |
|---|---|---|---|---|
| **Edmonton** | | | | |
| Calmar | 14 | 4 | $299,027 | $68,672 |
| Edmonton | 1,184 | 242 | $406,364 | $105,202 |
| Fort Saskatchewan | 29 | 6 | $423,375 | $104,622 |
| Leduc | 63 | 11 | $563,768 | $144,404 |
| Nisku | 10 | 2 | $283,383 | $72,363 |
| Sherwood Park | 72 | 13 | $409,612 | $108,198 |
| Spruce Grove | 48 | 9 | $509,986 | $126,424 |
| St. Albert | 64 | 12 | $436,996 | $109,307 |
| **Average $ by Region** | | | **$416,688** | **$104,899** |
| **Calgary** | | | | |
| Airdrie | 35 | 7 | $384,691 | $102,420 |
| Calgary | 1,263 | 265 | $425,203 | $114,317 |
| **Average $ by Region** | | | **$404,947** | **$108,368** |
| **Northern Alberta** | | | | |
| Bonnyville | 35 | 7 | $426,929 | $111,443 |
| Fort McMurray | 91 | 15 | $617,379 | $168,829 |

| | | | | |
|---|---|---|---|---|
| Grande Prairie | 121 | 25 | $328,800 | $88,759 |
| High Level | 20 | 4 | $728,055 | $201,666 |
| Lac LaBiche | 14 | 2 | $283,383 | $72,363 |
| Lloydminster | 54 | 9 | $538,017 | $142,816 |
| Peace River | 25 | 5 | $564,273 | $149,795 |
| Slave Lake | 32 | 6 | $501,793 | $129,709 |
| **Average $ by Region** | | | **$498,579** | **$133,173** |
| **Southern Alberta** | | | | |
| Blairmore | 21 | 4 | $358,439 | $91,884 |
| Brooks | 59 | 13 | $416,832 | $112,054 |
| Cochrane | 25 | 6 | $386,969 | $105,663 |
| Hanna | 23 | 5 | $270,212 | $69,519 |
| Lethbridge | 191 | 37 | $331,319 | $81,967 |
| Medicine Hat | 213 | 43 | $265,505 | $69,894 |
| Okotoks | 25 | 6 | $334,344 | $90,432 |
| Pincher Creek | 25 | 5 | $234,986 | $61,087 |
| Red Deer | 192 | 36 | $396,539 | $104,780 |
| **Average $ by Region** | | | **$332,793** | **$87,476** |

## 7.2 Distribution of VLT Revenues by Community

In Table 85 information on 15 selected communities is presented with respect to (a) community rank by gross revenue per VLT; (b) number of VLTs; (c) number of VLT locations; (d) total cash-in dollars (not total credits played) spent annually on VLT play; (e) cash-out dollars paid in prizes; (f) net sales; (g) commissions paid to venue operators; and (h) gross revenues per VLT.

As Table 85 indicates, High Level ($201,666) was the highest VLT revenue generating community per VLT in the province, with Ft. McMurray ($168,829) second. The lowest revenue generating community was Medicine Hat ($69,894), which ranked 51 out of the 59 communities tracked by AGLC.

Nine of the top ten ranked communities are located in northern Alberta and seven of the top ten communities are recognized for natural resource extraction (i.e. oil, gas, forestry) as their primary industrial base (i.e. High Level, Ft. McMurray, Leduc, Lloydminster, Slave Lake, Edson, Whitecourt).

### TABLE 85
### Distribution of VLT Revenues by Community (2000-2001)

| Community | Rank | # VLTs | # Locations | VLT Revenues | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Cash In | Cash Out | Net Sales | Commissions | Gross Revenue Per VLT |
| High Level | 1 | 20 | 4 | $14,561,101 | $9,816,016 | $4,745,085 | $711,763 | $201,666 |
| Ft McMurray | 2 | 91 | 15 | $56,181,512 | $38,106,906 | $18,074,607 | $2,711,191 | $168,829 |
| Peace River | 3 | 25 | 5 | $14,106,819 | $9,701,081 | $4,405,738 | $660,861 | $149,795 |
| Leduc | 4 | 63 | 11 | $35,517,412 | $24,814,559 | $10,702,853 | $1,605,428 | $144,404 |
| Lloydminster | 5 | 54 | 9 | $29,052,936 | $19,979,950 | $9,072,987 | $1,360,948 | $142,816 |
| Slave Lake | 6 | 32 | 6 | $16,057,382 | $11,174,206 | $4,883,176 | $732,476 | $129,709 |
| Spruce Grove | 7 | 48 | 9 | $24,479,317 | $17,340,089 | $7,139,228 | $1,070,884 | $126,424 |
| Edson | 8 | 41 | 7 | $18,559,674 | $12,675,045 | $5,884,629 | $882,694 | $121,998 |
| Calgary | 9 | 1,263 | 265 | $537,031,481 | $367,170,072 | $169,861,409 | $25,479,211 | $114,317 |
| Whitecourt | 10 | 45 | 10 | $18,405,636 | $12,467,223 | $5,938,413 | $890,762 | $112,170 |
| Edmonton | 17 | 1184 | 242 | $481,134,765 | $334,595,151 | $146,539,613 | $21,980,942 | $105,202 |
| Red Deer | 21 | 192 | 36 | $76,135,473 | $52,467,432 | $23,668,042 | $3,550,206 | $104,780 |
| Lethbridge | 33 | 191 | 37 | $63,281,859 | $44,863,289 | $18,418,570 | $2,762,785 | $81,967 |
| Grande Prairie | 39 | 121 | 25 | $39,784,795 | $27,149,655 | $12,635,140 | $1,895,271 | $88,759 |
| Medicine Hat | 51 | 213 | 43 | $56,552,477 | $39,037,850 | $17,514,628 | $2,627,194 | $69,894 |

## 7.3 Community Demographics

In Table 86, demographic indicators obtained through Statistics Canada, for the 15 profiled communities are presented with a view to providing a preliminary exploration of the relationships between demographic indicators and VLT revenues. It is beyond the scope of this study to provide a detailed comparative analysis of demographic variables and VLT revenues by community.

### TABLE 86
### Community Demographics

| Demographic | HL | FM | PR | LE | LL | SL | SG | EDS | C | W | ED | RD | LB | GP | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Gender (%15 years and over)** | | | | | | | | | | | | | | | |
| Male | 52.1 | 53.0 | 50.2 | 48.7 | 49.8 | 50.7 | 49.8 | 50.6 | 49.6 | 53.4 | 48.8 | 48.8 | 47.6 | 50.5 | 48.4 |
| Female | 47.9 | 47.0 | 49.8 | 51.3 | 50.2 | 49.3 | 50.2 | 49.4 | 50.4 | 46.6 | 51.2 | 51.2 | 52.4 | 49.5 | 51.6 |
| **Age (% Total population)** | | | | | | | | | | | | | | | |
| 20-24 | 9.4 | 8.0 | 7.8 | 6.7 | 9.5 | 7.8 | 6.4 | 7.3 | 7.6 | 8.0 | 8.6 | 9.3 | 9.4 | 9.8 | 7.3 |
| 25-44 | 38.8 | 37.1 | 33.4 | 29.1 | 32.9 | 35.6 | 30.9 | 32.6 | 35.2 | 37.8 | 32.4 | 32.5 | 27.8 | 35.7 | 28.6 |
| 45-54 | 9.3 | 16.1 | 12.7 | 15.4 | 11.3 | 11.3 | 15.6 | 13.3 | 14.5 | 11.2 | 13.8 | 13.4 | 13.8 | 11.7 | 13.5 |
| 55+ | 5.8 | 7.3 | 13.8 | 19.4 | 15.0 | 8.2 | 15.2 | 15.7 | 16.7 | 8.7 | 19.8 | 16.6 | 23.7 | 11.8 | 24.3 |
| **Marital Status (%15 years and over)** | | | | | | | | | | | | | | | |
| Single | 41.5 | 37.9 | 35.8 | 27.5 | 35.0 | 37.8 | 27.0 | 31.5 | 34.8 | 35.0 | 36.4 | 36.4 | 31.5 | 38.2 | 28.2 |
| Married | 47.3 | 49.9 | 48.6 | 56.5 | 50.5 | 48.9 | 59.8 | 50.9 | 49.9 | 51.6 | 46.1 | 46.7 | 50.7 | 47.5 | 53.7 |
| Separated | 3.9 | 3.0 | 3.4 | 2.8 | 3.3 | 3.4 | 2.8 | 3.4 | 3.0 | 3.0 | 3.3 | 3.3 | 2.4 | 3.2 | 2.9 |
| Divorced | 6.3 | 7.6 | 7.4 | 7.1 | 5.9 | 7.3 | 7.0 | 8.8 | 8.0 | 7.8 | 8.5 | 8.8 | 8.5 | 7.4 | 8.1 |
| Widowed | 1.0 | 1.6 | 4.8 | 6.2 | 5.3 | 2.7 | 3.5 | 5.5 | 4.3 | 2.6 | 5.6 | 4.9 | 7.0 | 3.6 | 7.0 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Education (%20-64 years)** | | | | | | | | | | | | | | | |
| Less than high school certificate | 29.3 | 20.1 | 23.7 | 25.8 | 27.0 | 29.1 | 21.9 | 30.5 | 16.6 | 28.8 | 20.3 | 22.4 | 19.4 | 22.8 | 26.7 |
| High school certificate and/or some post secondary | 20.1 | 24.0 | 22.3 | 26.1 | 24.4 | 26.6 | 28.5 | 26.5 | 25.3 | 24.9 | 25.5 | 27.5 | 27.8 | 27.5 | 26.8 |
| Trades certificate or diploma | 14.9 | 24.4 | 18.7 | 19.1 | 18.3 | 16.1 | 17.6 | 18.8 | 11.8 | 19.8 | 12.8 | 15.1 | 14.1 | 18.1 | 16.1 |
| College certificate or diploma | 21.8 | 17.4 | 18.5 | 18.1 | 17.1 | 15.3 | 18.9 | 12.0 | 18.5 | 16.5 | 18.3 | 20.2 | 19.5 | 18.7 | 18.1 |
| University certificate. diploma or degree | 14.9 | 14.1 | 16.9 | 10.9 | 13.1 | 13.4 | 13.2 | 12.1 | 27.7 | 9.7 | 23.0 | 14.8 | 19.1 | 12.9 | 12.2 |
| **Income (15 years and over)** | | | | | | | | | | | | | | | |
| Avg. earnings (all persons with earning) $000 | 33.8 | 44.9 | 33.5 | 33.4 | 31.4 | 33.5 | 32.1 | 33.5 | 36.5 | 36.2 | 30.5 | 30.5 | 27.1 | 32.8 | 28.2 |
| Avg. earnings (full time, full year) $000 | 47.4 | 60.4 | 45.6 | 45.2 | 41.8 | 43.4 | 42.9 | 44.6 | 48.8 | 47.5 | 41.3 | 41.0 | 38.0 | 43.5 | 38.7 |
| **Employment (%15 years and over)** | | | | | | | | | | | | | | | |
| Employment rate | 82.1 | 78.6 | 75.9 | 71.7 | 74.6 | 74.5 | 72.9 | 70.8 | 71.2 | 77.3 | 66.1 | 71.4 | 64.6 | 76.5 | 63.2 |
| Unemployment rate | 2.4 | 4.5 | 3.7 | 4.2 | 3.8 | 6.9 | 4.6 | 5.4 | 5.0 | 7.4 | 6.0 | 5.2 | 5.5 | 5.5 | 5.6 |

* Statistics in this Table are derived from Statistics Canada 2001 Census

** Some percentages do not add up to 100% because of rounding

## Gender

Table 86 data indicate that three of the top ten communities with the highest gross revenue/VLT [High Level (52.1%), Fort McMurray (53%) and Whitecourt (53.4%)] had a higher percentage of males, while the other seven communities in the top ten had a relatively even distribution of males and females. Conversely, with the exception of Grande Prairie, the five lower VLT revenue-generating communities had a higher prevalence of females Lethbridge (52.4%), Medicine Hat (51.6%), Edmonton (51.2%) and Red Deer (51.2%).

## Age

With respect to age, the highest ranked communities/gross VLT revenue [High Level (5.8%) and Fort McMurray (7.3%)] had a much lower percentage of residents over 55 years-of-age than the lowest ranked community [Medicine Hat (24.3%)].

## Marital Status and Education

As with age, the two highest ranked communities [High Level (41.5%) and Fort McMurray (37.9%)] had a greater percentage of "single" residents than did Medicine Hat (28.2%), the lowest ranked community/gross revenue per VLT.

## Education

There are no apparent relationships between levels of education and gross VLT revenues per community. It is interesting to note that Fort McMurray residents (24.4%)

were most likely to have trade certificates or diplomas, and residents in Calgary (27.7%) and Edmonton (23%) were most likely to have a university certificate, diploma or degree.

Income

With respect to annual average earnings of citizens 15 years and older working full time for a full year, Table 86 shows that seven of the top ten VLT revenue producing communities had mean earnings of over $44,000 per annum, whereas four of the five lower revenue generating communities reported mean earnings of less than $41,000 per annum. Residents of Fort McMurray, the second highest VLT revenue generating community, report a significantly higher annual income ($60,400) than any other community.

Employment

Table 86 data indicates a relationship between VLT revenues and unemployment rates, in that the top 5 VLT revenue generating communities reported unemployment rates of 4.5% or less, with 3 of these communities' unemployment rates being less than 4%. Conversely, the bottom five revenue generating communities all report unemployment rates of 5.2% or greater.

### 7.4 Relationship Between VLT Revenues and Problem Gambling

In this section, the intent is to provide a preliminary evaluation of any apparent association between VLT revenues and problem gambling prevalence rates. In Table 87 moderate-risk and problem gambler prevalence rates from the Alberta VLT study group is compared to the average gross annual sales per VLT by region. There appears to be a higher percentage of problem and moderate-risk VLT players in regions with higher VLT revenues. The northern Alberta region leads the way in VLT sales ($498,579) and moderate-risk and problem gamblers (44.3%), followed by the Edmonton region ($416,688 and 38.3%). In comparison, the Calgary region, which reports average gross annual sales per VLT of $404,947, has a lower combined rate (30.8%) of moderate and problem gamblers than does the southern Alberta region (35.9%) who reported average gross annual sales of $332,793.

**TABLE 87**
**VLT Revenues and Problem Gambling**

| Region | Moderate-risk Gambler | Problem Gambler | Combined Total | Average Gross Annual Sales Per VLT |
|---|---|---|---|---|
| Edmonton | 21.6% | 16.7% | 38.3% | $416,688 |
| Calgary | 19.1% | 11.7% | 30.8% | $404,947 |
| Northern Alberta | 28.7% | 15.6% | 44.3% | $498,579 |
| Southern Alberta | 28.2% | 7.7% | 35.9% | $332,793 |

# CHAPTER EIGHT
# CONCLUSIONS AND IMPLICATIONS

The purpose of this research was to investigate the nature, scope and impacts of VLT gambling in Alberta. Legal VLT gambling has been offered in Alberta for more than a decade, ample time to chart its spectacular growth and revenue production, as well as discern any impacts that VLTs may have had on community life. VLT gambling has a checkered history in Alberta, starting with concerns about their placement in readily available licensed premises and perceived addictive potency, to being the focus of several government inquiries, to becoming a ballot box issue in nearly forty Alberta communities, to the subject of four years of legal wrangling over retailer rights to keep machines in communities that voted them out. The decade of VLT gambling in Alberta is characterized by alternating cycles of hot VLT issues bubbling to the surface, followed by periods of dormancy; however, these issues related to VLT gambling have not been completely resolved.

This study is the first of its type in Canada, to the extent that official government expenditure data on VLT wagering by various communities were made available by the Alberta Gaming and Liquor Commission (AGLC) and a sampling of VLT players were interviewed at bars and lounges throughout the province. This level of data allowed us to probe beneath the surface of VLT gambling in Alberta and, hopefully, the findings will help inform the policy decisions of legislators, further public understanding of the VLT gambling phenomenon, and spark interest in this line of inquiry amongst our academic colleagues.

We finish this study by highlighting the major findings, deriving conclusions from these findings and suggesting implications these findings may have for governments, the gambling industry, the general public and future research.

## 8.1 Profiling Alberta VLT Players

In Chapter 4 we identified two distinct data sets that profile Alberta VLT players. The first came from self-identified VLT players in the most recent Alberta gambling and problem gambling prevalence study (Smith & Wynne, 2002) and the second from patron intercept interviews conducted in 2002 at VLT venues across Alberta, specifically for this project. Both data sets used the Canadian Problem Gambling Index (CPGI) to provide information on respondents' demographic characteristics and to separate the sample into gambler sub-types. In combination, the two samples provide comprehensive data on 448 respondents. The samples are; however, markedly different in that one was a random telephone survey of the general population and the other featured face-to-face interviews with VLT players in bars and lounges. Given the differences in samples and data gathering methods, it is fair to assume a higher percentage of devoted VLT gamblers in the on-site sample. While the two data sets are shown separately in most tables, our primary focus is on the 206 respondents interviewed expressly for this study. Consequently, discussion in this chapter centers on this group, except where cross-study comparisons are warranted.

In this section we profile Alberta on-site VLT players by gambler sub-type, outline their style and patterns of VLT play, examine their VLT expenditures and ascertain their motives for playing VLTs.

First, we note that the most recent evidence shows VLT play to be the fifth most popular gambling activity amongst adult Albertans, and that 13.4% of the adult population reported playing a VLT in the previous year (Smith & Wynne, 2002). In terms of demographic background, our on-site sample of VLT players were more likely than the general population sample to be male, between the ages of 30 and 49, married or single (never married), have no more than a high school education, have an annual household income of less than $50,000 be of British or Aboriginal extraction, and have full time (30 or more hrs. a week) employment.

The Canadian Problem Gambling Index (CPGI) was administered to informants in this study. Embedded in the CPGI is a nine-item sub-scale known as the Problem Gambling Severity Index (PGSI) that is used to distinguish four gambler sub-types: non-problem, low risk, moderate risk, and problem.

Based on PGSI scores, the percentage of respondents qualifying for each gambler sub-type were as follows: non-problem (18.9%), low risk (19.9%), moderate risk (39.3%), and problem (21.8%). These figures are significantly higher than those registered by VLT players in the general population study (Smith & Wynne, 2002), which were: non-problem (58.3%), low risk (22.7%), moderate risk (13.2%), and problem (5.8%). The low risk category is similar in the two samples (around 20% of respondents); whereas, the on-site VLT player sample contained a much lower percentage of non-problem gamblers and far higher percentage of moderate risk and problem gamblers than did the general population sample.

A comparison of the demographic data by gambler sub-type revealed the following:

Area of residence. Just over half the Calgary sample (51%) registered as non-problem or low risk VLT gamblers, as opposed to the Edmonton (35%), northern Alberta (36%), and southern Alberta (38%) sub-samples, respectively. Moderate risk gamblers were more likely to be found in northern and southern Alberta and problem gamblers were more likely to reside in Edmonton and northern Alberta.

Gender. There was near equal representation of males and females in each VLT gambler sub-type.

Age. A majority (72%) of non-problem VLT gamblers was over age 40; both low and moderate risk VLT gamblers were fairly evenly represented in all age categories; and the highest concentration of problem VLT gamblers (56%) fell in the 30 to 49 age range.

Marital status. Other than the fact that 76% of respondents who reported living in common law arrangements were moderate risk or problem gamblers, and 48% of those single (never married) were moderate risk gamblers, marital status was not a significant factor in differentiating VLT gambler sub-types.

Education level. This variable did not significantly discriminate between VLT gambler sub-types in the Alberta VLT study sample.

Annual household income. Data on this variable must be interpreted cautiously because of the many income choices possible, thus generating some cells with relatively small numbers. Given this caveat, the income categories that stood out for having a combined total of 65% or more moderate-risk and problem VLT gamblers include: under $20,000 (86%); $30,000-39,999 (65%); $80,000-89,999 (92%); $100,000-119,999 (78%); and $120,000-149,999 (66%).

Ethnicity. The most revealing statistic in this category is the susceptibility of aboriginals for experiencing a VLT-related gambling problem. Of the 34 aboriginal respondents in the study, 29% scored as moderate risk and 38% as problem gamblers.

Employment status. The categories most closely associated with moderate risk and problem VLT gambling behavior were (1) unemployed (moderate risk-47%, problem-40%); (2) employed part-time (moderate risk-43%, problem-29%); (3) retired (moderate risk-36%, problem-16%); and (4) homemaker (moderate risk-11%, problem-33%).

Occupation. Over 60% of respondents in the following occupational roles qualified as moderate risk or problem gamblers; trades (e.g. welder, mechanic, plumber), self-employed, oilfield/construction (non-trades); business, finance, administration; and hospitality industry.

## Conclusions

Concerning the demographic profile of the on-site VLT player sample, we draw the following conclusions:

- Higher percentages of disordered VLT gamblers (moderate risk-39% and problem-22%) were found amongst on-site VLT players, in contrast to the general population survey VLT player sample (moderate risk-13% and problem-6%).
- On-site disordered VLT players (moderate risk and problem VLT gamblers) were more likely than controlled players (non-problem and low risk VLT gamblers) to live in Edmonton or the northern Alberta region; be between 30-49 years of age; have yearly household incomes in both the lower (under $20,000; $30,000-$39,999) and upper ($80,000-$149,999) annual household income ranges; be of aboriginal descent; and be either unemployed, employed part-time, retired or homemakers.

**Implications**

Only a small portion (under 2%) of the Alberta adult population is severe problem gamblers (Smith & Wynne, 2002). However, in this sample, dealing with only one gambling format (VLTs) and those who play them regularly, we found an inordinately high percentage of disordered VLT players; (22% problem and 39% moderate risk gamblers), meaning that three out of every five respondents interviewed on-site indicated a significant degree of impaired control when playing VLTs. This evidence suggests the need for a review of Alberta's VLT program, wherein a number of questions need to be addressed. For instance, why do such a large percentage of VLT players gamble improvidently? Are some players predisposed due to genetic, cultural, situational and/or dysfunctional upbringing factors? Is the easy access to the machines, their structural characteristics, or the VLT gambling venue ambiance (e.g. alcohol and ATMs on the premises) to blame? Is the VLT question solvable? Are there ways to make critical inroads into the negative impacts of VLTs without resorting to the South Carolina example of eliminating them altogether? If so, what steps need to be taken?

With respect to the demographic variables associated with disordered VLT gamblers, (i.e. area of residence, age, ethnicity and yearly household income), is it possible to build firewalls to protect vulnerable citizens? One obstacle to reform is that some of these associations have yet to be adequately explained; for example, why Edmonton and northern Alberta has a higher portion of disordered VLT players than Calgary and southern Alberta? Why is problem VLT play associated with both low and higher end household incomes? And, why is the 30-49 year old age group most likely to show problems with VLT gambling? These issues surfaced in this study, but require further research for clarification. In the meantime, what can be done? Regional and venue caps on VLT machines might be a way of dealing with area of residence differences, as might restrictions on the number of VLTs in lower socioeconomic status neighborhoods mitigate the impact of the machines on disadvantaged members of society.

The propensity of Aboriginal individuals for developing VLT-related gambling problems calls into question the decision to allow casinos and their attendant electronic gambling machines on reservation lands. Should gambling venues be located in areas where there are higher than average numbers of easily exploited individuals, and if so, should First Nations citizens be allowed to gamble in their own casinos? This is a thorny gambling policy issue that requires further research and reflection.

## 8.2 VLT Player Patterns, Styles, Expenditures, Cognitions and Motivations

Turning now to VLT player patterns by gambler sub-type, we highlight the following findings:

First started playing VLTs. Fifty percent of non-problem gamblers began playing VLTs in 1998 or later, versus low risk gamblers (37%), moderate risk gamblers (33%) and problem gamblers (27%).

VLT venue preference, travel distance, favorite machine and preferred time to play. Non-problem gambling VLT players were significantly more likely than the other three gambling sub-types to frequent the same VLT venue. Consistent across all four gambling sub-types was that the majority of VLT players usually traveled less than 5 km to play the machines.

Moderate risk (22%) and problem (24%) VLT players were more likely to report having a favorite machine that they regularly played than were non-problem (10%) and low risk VLT gamblers (12%). Non-problem (13%) and low risk (15%) VLT players seldom played more than one VLT at a time, as opposed to moderate risk (25%) and problem gamblers (51%) who did engage in this behavior. Moderate risk (54%) and problem gamblers (54%) were more likely to play VLTs in the afternoon (1 to 6 pm) than were non-problem (45%) or low risk gamblers (36%).

Surprisingly, there are only minor differences between VLT gambler sub-types in terms of their frequency of VLT play, with the most obvious being that non-problem players (38%) are more likely than problem players (7%) to be infrequent gamblers; that is, play on a once a month or less basis.

Duration of play per session clearly differentiates VLT gambler sub-types. As might be expected, impaired control VLT players typically play longer per individual session. For example, 74% of non-problem gamblers say they play the machines for 60 minutes or less as opposed to 22% of problem gamblers who do likewise. At the other end of the scale, only 5% of non-problem VLT gamblers participate for more than two hours at a time, versus 25% of problem players who reported playing this long.

A second measure of duration asked respondents to recall the longest amount of time they had played VLTs in a single session. Again, this is a useful statistic for discriminating between controlled and impaired control VLT players; to illustrate, the percentages in each sub-group that had played VLTs for (a) four to six hours and (b) more than six hours in one sitting is as follows: non-problem (8% and 3%), low risk (10% and 10%), moderate risk (21% and 14%) and problem (24% and 49%).

Degree of self-control. When playing VLTs, respondents' willingness to set and stick to spending limits differed significantly by gambler sub-type: 87% of non-problem gamblers set spending limits prior to play, as opposed to 44% of problem gamblers who did likewise. Non-problem VLT players (56%) report "never" or "sometimes" exceeding their pre-set spending limit, while only 5% of problem players report "never" going over their dollar limit, and 55% of this group, said that "most of the time" or "almost always" they overspend on VLTs. The majority of respondents in all four gambler sub-types did not set time limits for their VLT play.

VLT expenditures. The measures used in this category are average per session VLT expenditures and the largest amount won and lost on VLTs in one day. Not surprisingly, there was a wide gap in VLT spending patterns between controlled and disordered players.

At the low end of average expenditures per VLT session, 67% of non-problem gamblers report spending less than $50, versus 46% (low risk), 32% (moderate risk) and 7% (problem gamblers). The top end of average expenditures per VLT session (over $200) breaks down as follows: non-problem (3%), low risk (17%), moderate risk (15%) and problem (56%).

In terms of the largest amount lost in a single day, the percentages by VLT gambler sub-type in the low expense category (less than $200) are: non-problem (69%), low risk (54%), moderate risk (31%), and problem (11%). In the upper expense category (over $1,000), none of the non-problem gamblers lost this much in one day, as opposed to 2% of low risk, 9% of moderate risk and 49% of problem gamblers. About 10% of the problem gambler cohort reported losing more than $3,000 on VLT play in one day.

Differences between VLT gambler sub-type in the largest amount won in a single day category are not significant; the percentage of respondents reporting wins of $500 or more are non-problem (72%), low risk (78%), moderate risk (80%) and problem (91%).

On the related VLT expenditure topic of on-site Automatic Teller Machine (ATM) usage, 72% of non-problem gamblers said they "never" used gambling venue ATMs, versus 46%, 27% and 13% of low risk, moderate risk and problem gamblers, respectively. In terms of frequent on-site ATM usage, 18% of non-problem gamblers visit an ATM machine "most of the time" or "almost always," in contrast to low risk (20%), moderate risk (27%) and problem (56%) VLT players who do likewise.

VLT gambling motivation and co-participation. To ascertain player motivation and co-participation patterns, respondents were asked why they played VLTs and whom, if anyone, they played with. The majority of respondents in all gambler sub-types said they played VLTs to "win money" followed by to "pass the time/relieve boredom." Problem VLT players were more likely than the other gambler sub-types to say they played for "excitement/thrill/rush" and less likely than the other sub-types to say they played for "enjoyment/fun." Interestingly, fewer than 15% of respondents across all gambler sub-types cited the following as reasons for playing VLTs: "social outing," "venue atmosphere," "challenge," "relaxing/stress relief," "distraction/escape" or "enjoyment/fun."

The greater the degree of impaired control over their gambling, the more likely respondents were to play VLTs alone; to wit, the percentages of respondents in each sub-type who report usually playing alone are non-problem (39%), low risk (39%), moderate risk (52%) and problem (67%). The percentages in each sub-type who usually play VLTs with their spouse/partner or other family members are non-problem (36%), low risk (42%), moderate risk (19%) and problem (20%).

VLT player cognitions by gambler sub-type. Respondents were asked, "If after losing on the VLTs many times in a row, are you more likely to win?" By and large respondents in all gambler sub-types either disagreed or strongly disagreed with this statement; however, higher risk gamblers (moderate-16% and problem-24%) were more likely to agree with the statement than were low risk gamblers (12%) and non-problem- (8%).

When asked if they thought there was a system or strategy that could be used to improve their chances of winning on VLTs, only a small percentage (between 10% and 15%) in each sub-type believed this to be true.

In regard to superstitious behavior and perceived ability to predict the arrival of big payouts, the breakdown of responses is as follows:

- Belief in superstition(s) to bring luck; non-problem (5%), low risk (7%), moderate risk (22%) and problem (22%).
- Those claiming an ability to predict when a big payout is coming; non-problem (5%), low risk (7%), moderate risk (14%) and problem (22%).

While these perceptual differences are not statistically significant, the trend shows that faulty cognitions about VLT gambling situations were somewhat more pronounced among disordered gamblers in this sample.

Finally, in the category "VLT player return on investment," respondents were asked to estimate the percentage of money wagered on VLTs that comes back to players in the form of winnings. Over 65% of respondents in all four gambler sub-types pegged the return to players as being 39% or less (far lower than the actual percentage of 70%).

**Conclusions**

With regard to VLT player patterns, styles, expenditures, motivations and cognitions we present the following conclusions:

- Disordered VLT gambling is associated with number of years playing the machines (the more years spent playing VLTs, the more likely a player will show signs of impaired control).
- The majority of respondents reported traveling less than five km to play VLT machines.
- Duration of play, both in terms of average time spent per VLT session and longest time ever spent in a single VLT session, was a critical variable in separating low risk from problem gamblers. Low risk gamblers spent far less time playing VLTs than did moderate risk or problem VLT players.
- By definition, problem gamblers have difficulty controlling the time and money they spend gambling. This presumption is validated here, in that, low risk gamblers seldom exceeded pre-set spending limits on the machines, while high risk players regularly wagered more than intended in a typical VLT playing session.
- Problem gamblers in this sample spent substantially higher dollar amounts on VLTs than did the three other gambler sub-types, both in a typical VLT session, and in one day.

- On-site Automatic Teller Machines (ATMs) were used by problem gamblers to a greater extent than by low risk and non-problem gamblers.
- The primary reason given for playing VLTs by a majority of respondents in all gambler sub-groups was to "win money" and only a few respondents in the entire sample reported playing VLTs for "fun," "enjoyment" or "entertainment."
- Problem VLT gamblers were more likely to play VLTs alone compared with non-problem and low risk gamblers, who were more likely to play with their spouses/partners or other family members.
- VLT players' intuitions about losing streaks turning into winning streaks, winning systems of play, superstitious behavior bringing good luck, and premonitions of when a big win is imminent were generally realistic, in the sense that the majority of the sample put little stock in these beliefs. Impaired control gamblers did, however, put more faith in these beliefs than did controlled gamblers.
- VLT players in this sample were blatantly uninformed about machine payout percentages (the vast majority assumed that VLT payouts were much worse than they really are).

### Implications

The fact that most VLT players travel a short distance to play the machines has a bearing on VLT distribution patterns; firstly, in that, machines may be too readily accessible, and secondly, machines concentrated in lower income areas are likely to attract players susceptible to a gambling addiction.

It is axiomatic to state that the longer one is exposed to VLT gambling, be it lifetime, in a typical outing or one marathon session, the greater the chance of incurring a financial loss and exhibiting impaired control gambling behavior. Given the unfavorable payout ratios of VLTs and the fact that skill cannot be applied to influence game outcomes, players are at the mercy of the ineluctable mathematics of probability. Since the chance of winning on VLTs over an extended period of time is negligible, it behooves responsible gambling providers to ensure that gamblers are well informed before making a purchasing decision. This is true for all gambling formats, but especially so for VLT gambling, where players neither are generally aware of the probabilities of hitting a winning combination nor cognizant of the gambling operator's profit margin.

Respondent confusion over VLT payout rates is startling and runs counter to the precept of "informed consent" that undergirds consumer protection legislation. The essence of the class-action lawsuit underway in Quebec is the assertion that the government failed to warn the public about the hazards of VLT gambling. The plaintiffs' argue that because VLT gambling is potentially damaging to both individuals and society, the provider of gambling services (the government) is obligated to notify players about odds, payout percentages and safe gambling practices. Obviously, this sample of on-site VLT players were poorly informed about their chances of winning, even to the extent they assumed VLT payout percentages to be worse than they really are. Which begs the question, "Why play VLTs at all, if you perceive payout percentages to be so low?"

A government-initiated public awareness campaign that includes; VLT payout percentages prominently displayed in VLT venues and as a pop-up feature on the video screens, and brochures in VLT venues that explain how VLTs work and how pay-out percentages are derived would be positive steps toward correcting this knowledge imbalance.

Given that most of the VLT players we studied were not motivated to play the machines for fun or entertainment and were sometimes prone to exhibit impaired control behavior when using the machines, it is important for the government and VLT industry to evaluate the harm reduction measures now in place. Certainly in recent years, gambling regulators and operators have become more attuned to dangerous VLT playing practices and are addressing the issue by mandating harm reduction features on new VLTs and educating industry workers about gambling addiction. The findings from this study indicate, however, that problems with VLTs may be more acute than originally thought, which provokes the question; "Are these harm reduction measures stringent enough?" To further reduce the hazards of VLT gambling, consideration should be given to the following possibilities:

- Dickerson's (2003) notion of removing the point-of-sale of VLT play to a time prior to the start of a VLT session and to a location away from the gambling venue floor. In this scenario, players buy VLT playing time in a less anxiety inducing setting for an amount that suits their budget.
- Extending the self-exclusion program to VLT venues as well as casinos.
- Assigning VLTs only to dedicated gambling venues.
- Withdrawing technological enhancements such as bill acceptors on machines and gambling floor ATMs that seem to facilitate impaired control gamblers betting more than they can afford.

### 8.3 Problem Gambling Behavior, Adverse Consequences, Help Seeking and Correlates

VLT problem gambler behavior. As known from the academic literature, problem gamblers exhibit some or all of the following behaviors: (1) frequently bet more than they can afford to lose, (2) need to gamble with larger amounts to get the same feeling of excitement, (3) return another day to try and recoup losses (also known as chasing), (4) borrow money or sell goods to obtain money to gamble, (5) lie to family members or others to hide their gambling behavior, (6) feel they might have a gambling problem, (7) would like to stop gambling but cannot, and (8) feel out of control when playing VLTs. The saliency of these behaviors for problem gambling VLT players in this sample (expressed as the combined percentage of those who said this happens to them "most of the time" or "almost always") was:

- Bet more than can afford to lose (56%).
- Need to gamble with larger sums to get the same level of excitement (29%).
- Chasing (29%).
- Borrowing (2%).
- Bet more than intended (62%).
- Lied about their gambling behavior (23%).

* (The first four of the above are PGSI items)

Adverse consequences experienced by problem gambling VLT players. Problem gamblers, compared with the other three gambler sub-types, reported that "most of the time" or "almost always" they experienced:

- Gambling-related health problems (25%).
- Had their gambling behavior criticized or were told by others they had a gambling problem (38%).
- Felt guilty about their gambling behavior (71%).
- Suffered financial duress as a result of their VLT gambling (38%).
- Had a personal crisis while playing VLTs (16%).

* (The first four of the above are PGSI items)

Help seeking by problem gamblers. Given that two-thirds of the problem VLT players recognized their gambling behavior was out of control and the fact that 47% of this group said they would like to stop gambling but could not, it is not surprising that (27%) of the problem gamblers in this survey had sought help to curb their addictive gambling behavior, as opposed to non-problem (0%), low risk (2.4%) and moderate risk (1.2%) gamblers. The most common sources of help sought by problem gamblers were Gamblers Anonymous, Alberta Alcohol and Drug Abuse Commission (AADAC) and employee assistance program counselors.

Problem gambling correlates. Variables thought to be linked with problem gambling behavior include family addiction history, co-morbidity, pain relief, stress and depression. Surprisingly, a relatively high percentage of respondents in all gambling sub-types reported family members with gambling and alcohol or drug problems; to illustrate, the percentage of those having a family member(s) with gambling problems were non-problem (18%), low risk (20%), moderate risk (27%) and problem (42%), while the percentage of those having family member(s) with substance abuse issues were non-problem (33%), low risk (44%), moderate risk (63%) and problem (67%).

In terms of co-morbid behaviors, there were no significant differences between gambler sub-types in terms of tobacco, alcohol or drug use while playing VLTs; moreover, an inordinately high number of respondents across the sample engaged in these unhealthy activities. Depending on gambler sub-type, between 68% and 80% of all VLT players smoked and between 59% and 69% used alcohol or drugs when playing VLTs. The percentage of respondents who reported having played VLTs while "drunk" or "high" was non-problem (31%), low risk (29%), moderate risk (36%) and problem (49%).

The percentage of those admitting to an alcohol or drug problem was non-problem (15%), low risk (15%), moderate risk (21%) and problem (33%).

The percentage of respondents who said they turned to VLT play and alcohol consumption as a way of coping with painful life events was: VLT play--non-problem (0%), low risk (24%), moderate risk (14%) and problem (38%) and alcohol consumption—non-problem (15%), low risk (37%), moderate risk (38%) and problem (42%).

In terms of being under medical care for stress and having been depressed for more than two weeks in a row, the sub-sample breakdown is as follows: stress—non-problem (13%), low risk (20%), moderate risk (21%) and problem (31%) and depression—non-problem (18%), low risk (24%), moderate risk (35%) and problem (58%).

With regard to other health-related issues, respondents were asked about their current health status and to specify any major health conditions they had. The breakdown by gambler sub-type of those describing their health as either "fair" or "poor" is non-problem (5%), low risk, (10%), moderate risk (15%) and problem (18%). Particular medical conditions were not differentiated by gambler sub-type.

## Conclusions

Concerning our findings on VLT problem gamblers behaviors, the adverse consequences and correlates of these behaviors, and VLT gamblers' help seeking efforts, we draw the following conclusions:

- The most common problematic gambling behaviors exhibited by problem gambling VLT players include: betting more than intended (62%) or more than the player could afford to lose (56%); chasing losses (29%); increasing wagers to create more excitement (29%); and lying (23%) to significant others about their gambling behavior. About half the VLT problem gamblers admitted they cannot control their gambling, which was usually reflected in spending more time and money on the machines than anticipated or wanted.
- In terms of adverse consequences associated with problem gambling behavior, VLT problem gamblers were more prone than other gambler sub-types to have experienced gambling-related health problems (25%), feel guilty about their VLT participation (71%), have their gambling behavior criticized (38%), had a personal crisis while playing VLTs (16%) and suffered financial distress because of their VLT play (38%).
- Two-thirds of the VLT problem gamblers recognized they have a problem, and almost half would like to stop playing the VLTs if they could. One-quarter of the VLT problem gamblers had sought help for their addiction, generally through one or more of the following agencies: Gamblers Anonymous, AADAC and employee assistance program counseling.

- All VLT gambler sub-types scored higher than expected in terms of having family members with gambling or substance abuse problems. Problem gamblers scored the highest on these two items.
- A high percentage of the sample as a whole reported smoking and/or consuming alcohol or drugs when playing VLTs. Approximately one-third of the non-problem, low risk and moderate risk cohorts and one-half of the problem gamblers said they had played VLTs when "drunk or high."
- Nearly 40% of the problem VLT gamblers reported playing VLTs as a way of coping with painful events in their lives, while 0% of the non-problem gamblers used VLTs for this purpose.
- All three at-risk gambler sub-types were more likely to seek solace in alcohol consumption to handle painful life events than were non-problem gamblers.
- The greater the degree of impaired control of VLT play, the more likely the respondent was to be under medical care for stress-related physical and/or emotional problems. Similarly, problem VLT players were more likely to have endured a two week or longer bout of depression than were other VLT players.

### Implications

Congruent with the problem gambling treatment literature, VLT problem gamblers in our sample evidenced signs of being from dysfunctional families (in terms of addiction history); having poor health status; using inappropriate coping styles to deal with painful life events; and being susceptible to mental health breakdowns. These findings reinforce the line of thinking that problem gambling is but a symptom of deeper issues related to personal dissatisfaction with one's life circumstances (Peele & Brodsky, 1991). The addicted person's distress may be related to such diverse and interrelated factors as a dysfunctional upbringing, low self-esteem, poor body image, underdeveloped life and relationship skills, serious psychological problems and so forth. Essentially, excessive gambling may be seen as a coping style used to deal with unfavorable, and seemingly irresolvable, life circumstances (Jacobs, 1986). Initially, the strategy works because the gambler feels comfortable in the VLT venue environment, experiences gratifying sensations and is distracted from the day-to-day grind where problems are usually encountered. In the long run, however, these benefits are illusory and the problem gambler's hardships are compounded because he/she is now losing money to the VLTs and the source(s) of his/her discomfort remain unchanged. The gambling addiction ultimately reinforces and deepens the problems the person was trying to escape in the first place. Problem gambling therapists understand these issues, but at the political and societal levels questions such as the following must be addressed:

- How can predisposed individuals be prevented, restricted or protected from abusing their right to play VLTs and who should implement these corrective measures?
- How can the ecology of Alberta VLT venues be made healthier given the high incidence of tobacco, alcohol and drug consumption by VLT gamblers?

- Is problem gambling strictly an individual responsibility or is there an onus on gambling providers as well?
- Given that nearly all VLT players lose control some of the time (Dickerson, 2003), how is it that some individuals are ultimately able to control their VLT play, while others cannot.
- Given that a person's gambling behavior is only a small part of the addiction equation, how can individual attitudes, values, outlooks and environments be shaped so that fewer people become enslaved to VLT gambling?

## 8.4 VLT Player Leisure and Recreational Pursuits

In this section respondents' preference for other gambling formats and leisure and recreational pursuits are presented and discussed.

Other gambling activities. Not surprisingly, the majority of respondents said that VLTs were their preferred gambling format. The only other gambling activities of note (mentioned by 10% or more of the gambler sub-type) include: non-problem (bingo), low risk (games at Alberta casinos other than coin slots or VLTs), moderate risk (bingo and games at Alberta casinos other than slots or VLTs) and problem (none).

Leisure and recreational activities. The two most frequently mentioned activities across all gambler sub-types were "sports/exercise" and "camping/fishing/hunting/boating." A notable finding was that problem (20%) and moderate risk (11%) gamblers were more likely than non-problem (0%) and low risk (5%) gamblers to mention "gambling" or "nothing" as their main leisure activities. There were no significant differences between gambler sub-types in terms of how often they pursued either their favorite leisure activities or the amount of money spent annually on these activities.

### Conclusions

Based on our analysis of VLT players' participation in other gambling activities and various leisure pursuits, we offer the following conclusions:

- VLT players in this sample, by and large, were not overly interested in other gambling formats; this is particularly so for the problem gambler cohort.
- Problem VLT gamblers, versus non-problem gamblers were more likely to cite "gambling" or "nothing" as preferred leisure pursuits.

### Implications

The fact that problem players in this sample overwhelmingly selected VLTs as their preferred gambling format, suggests that other gambling formats lack the same action and excitement. And, the fact that problem VLT players were more likely to mention "gambling" and "nothing" as primary leisure activities may indicate underdeveloped life skills. At-risk gamblers with few outside interests and difficulty tolerating boredom are prone to self-medicate. Self-medication is a key concept in the addiction literature—the idea that individuals frequently turn to their addictive substance or activity of choice as a way of treating their emotional distress (Dodes, 2002; Jacobs, 1986).

When machine gambling is introduced to a jurisdiction it invariably rapidly overtakes established gambling formats in terms of revenue generation. Even though a relatively small portion of adult Albertans (13.4%) play VLTs on an annual basis, it is still the most lucrative gambling format for the government. The attraction of VLTs for at-risk gamblers' is associated with a combination of the following factors: the structural characteristics of the machines (speed of play, pleasing sounds, bright colors, variable reinforcement schedule, wins recorded as credits, bill acceptors and so forth); an environment (on-site ATMs, alcohol, minimal distractions, etc.) conducive to escaping reality; which, when taken together, overpowers susceptible gamblers (unsatisfying life circumstances, poor coping skills, irrational beliefs about their chances of winning, etc.) and reduces their capacity to control the time and money they spend on the machines.

This is not to say that everyone who plays VLTs is vulnerable to becoming addicted, obviously, this is not the case. Disciplined individuals who have strong values, healthy relationships, an interest in fulfilling leisure pursuits, an ability to cope with stress and who are generally content with their life situations can play VLTs moderately and enjoy the experience. Ironically, individuals who possess these positive attributes are often less interested in playing VLTs because they find them repetitive, boring, and unstimulating. Which gets back to an earlier point; that is, VLTs are not ipso facto harmful; what makes them dangerous is the allure they have for a vulnerable minority of the population. If this at-risk group could learn to play VLTs temperately or be kept away from the machines, VLT-related social problems could be drastically reduced.

### 8.5 Players' Thoughts on Government VLT Policy and How VLTs Have Impacted Their Lives

In this section findings and conclusions are presented regarding VLT players comments on the government VLT program and the impact that VLTs have had on their lives.

Comments on the government VLT program. Player thoughts about the Alberta government's VLT program vary according to gambler sub-type. For instance, non-problem (33%), low risk (24%) and moderate risk (32%) gamblers main message to government was a desire for improved payout rates, in contrast to problem gamblers (58%), who asked that VLTs be removed from the province. The percentages of those in the other gambler subtypes also calling for the elimination of VLTs was: non-problem (8%), low risk (17%) and moderate risk (26%).

Impact of VLTs on player's lives. As anticipated, problem gamblers' self-reported impacts were negative, in contrast to generally positive or neutral impacts cited by other VLT players; for example, 36% of problem gamblers said that VLTs had created difficulties in their lives, versus less than 3% of respondents in the other gambler sub-types. Problem gamblers (4%) were also far less likely than the other gambler sub-types to say they played VLTs for "recreation/leisure/entertainment" compared with non-problem (21%), low risk (32%) and moderate risk (25%) gamblers.

**Conclusion**

Based on respondents' thoughts about the government VLT program and their perception of how VLTs have affected their lives, we present the following conclusion:

- The major objection of non-problem and low risk players to VLTs is that payout percentages are too low; whereas problem players are more inclined to suggest that the VLT program be eliminated altogether.

**Implication**

Non-problem and low risk players were more likely to use VLTs for entertainment, fun and relaxation, versus problem players who were often driven to play until their last dollar is gone or the establishment closes. Controlled players were in effect saying that their enjoyment of VLT play would increase if payouts were better, because they would lose less money and/or be able to play longer before reaching their pre-set spending limit. Problem gamblers, on the other hand, recognized that better payouts would also be attractive to them for the same reasons, but feared that this change alone would only exacerbate their addiction. Some problem gamblers were resigned to the fact that they could not resist the lure of the machines; therefore, from their perspective, the best and quickest way out of their quandary is to have VLTs permanently removed.

## 8.6 VLT Gambling Venues

In this section, we describe the VLT venues where respondent interviews took place, in terms of provincial region, type of establishment, patron and VLT player behaviors, and the visibility of problem gambling information.

Provincial region. To meet the project goal of at least 200 completed interviews with a provincial sample of VLT players, the province was divided into four regions (greater Edmonton, greater Calgary, northern Alberta and southern Alberta). In total, interviews with VLT players were conducted in 86 VLT venues in 27 towns/cities across the four regions. The VLT venues chosen encompass all of the main categories of VLT placement (e.g. hotel, restaurant, and casino) and represent various neighborhoods (e.g. downtown, rural, and light industrial).

VLT venue players, patrons and problem gambling information. VLT venues were entered by research team members during one of the four time periods outlined in the methodology chapter. Upon entry, researchers took note of the number of VLT machines, patrons and VLT players, attempted a crude profile of the VLT players and looked for displays of problem gambling information. The main findings include: (1) there were fewer patrons between 10 am and 7 pm, than after 7pm; (2) consistent throughout the day, between half and all VLTs were occupied; (3) there were approximately equal numbers of male and female players during all time periods; (4) there were fewer elderly VLT players in the later time periods; and (5) ninety percent of the VLT venues had problem gambling materials on hand.

**Conclusions**

In this section of the study the data are generally impressionistic; for example, in profiling players we could only estimate their ages. Secondly, time of day played was not matched with gambler sub-type. Given these limitations we offer the following tentative conclusions:

- VLT play (in terms of machines in use) is relatively consistent throughout the day; however, average player age declines as the day wears on.
- VLT venues show social responsibility by displaying problem gambling information.

**Implications**

VLT venue operators were more receptive than expected to our requests for conducting interviews in their establishments and, in many cases, accommodated research team members by providing quiet areas for interviews and supplying on-the-house snacks and soft drinks. Also, judging by venue operators' displays of problem gambling information and by comments made by VLT venue personnel to research team members in casual conversation, staff recognized that some clients were being devastated as a result of their overindulgent VLT play. The concern expressed by venue workers about uncontrolled VLT gambling was two-pronged: (1) a humanistic consideration about not wanting to see lives jeopardized by participation in a trivial pastime—especially in their own establishments; and (2) a fear that VLT gambling may not be sustainable. That is, eventually big money players will lose so much that they can no longer afford to play, or another public backlash against the perceived threatening nature of the machines will result in the machines being withdrawn.

Given the empathetic views of some operators and venue workers regarding the welfare of problem gambling customers', they may be amenable to incorporating the stricter harm reduction measures discussed earlier; in particular, self-exclusion programs for disordered gamblers and/or providing on-site interventions by professional counselors.

### 8.7 Alberta VLT Gambling Expenditures by Region and Community

Courtesy of the Alberta Gaming and Liquor Commission (AGLC), access to VLT expenditure and profit figures for various communities throughout the province was made available to the research team. In this section, we review the provincial distribution of VLT gambling revenues and compare these revenues with problem gambling prevalence rates.

Regional VLT revenue generation. In fiscal year 2001-02, $2.2 billion went into the 5,974 VLTs across the province, which yielded a profit of $584 million (an average of $97,000 per machine) for the Alberta Lottery Fund. Based on annual average sales per VLT figures, there were significant regional variations; (1) northern Alberta ($498,579), (2) greater Edmonton ($416,688), (3) greater Calgary ($404,947) and (4) southern Alberta ($332,793).

Community-based VLT revenue generation. In the AGLC VLT revenue data the research team had access to, 59 Alberta communities were tracked; comparing highest to lowest, the northern Alberta community of High Level was the most prolific VLT revenue producer with gross annual sales per VLT of $728,055 and gross annual revenue per VLT of $201,666; whereas, the southern Alberta town of Pincher Creek (the lowest ranking community) had gross annual sales per VLT of $234,986 and gross revenues per machine of $61,087. Seven of the top ten communities in the gross revenue per VLT category are in northern Alberta and nine of the highest ranking communities are known for natural resource extraction as their primary industry.

In an effort to explain the differential rates of VLT revenue production per VLT by Alberta community, Statistics Canada demographic indicators were examined for 15 Alberta communities (the top ten and five other communities ranking medium to low in revenues per VLT). The demographic factors separating high from medium and low revenue generation per VLT were:

- Gender distribution—three of the top VLT revenue producing communities High Level (52.1%), Ft. McMurray (53%) and Whitecourt (53.4%) had significantly higher percentages of male residents than did lower revenue producing communities such as Lethbridge (47.6%) and Medicine Hat (48.4%).
- Age—to the extent that higher VLT revenue per machine communities had much smaller age 55 and over cohorts compared with lower revenue communities; for example, less than 10% of adults were in the 55 + category in High Level, Ft McMurray, Slave Lake and Whitecourt, versus 24% of the adults at this age level in Lethbridge and Medicine Hat.
- Marital status and educational attainment—neither variable differentiated high from low VLT revenue producing communities.
- Annual income—was greater in high versus low VLT revenue producing communities; seven of the top ten communities had average yearly incomes of over $44,000, while annual incomes in four of the five lowest VLT revenue producing communities were under $41,000.
- Unemployment rate—the top five revenue generating communities per VLT had unemployment rates of under 4.5% (three of the communities were under 4%); whereas, the five lowest VLT revenue generators amongst our 15 community sample all had unemployment rates greater than 5.2%.

Regional VLT revenue generation and problem gambling prevalence. The relationship between these two variables is not clear cut; however, the general trend is that problem gambling prevalence rates were greater in regions that generated higher gross annual sales per VLT and, conversely, lower problem gambling prevalence rates coincided with lower sales per VLT. To illustrate, the provincial average for gross annual sales per VLT is $413,000—northern Alberta was significantly above this average and the Edmonton region was marginally above; whereas, the Calgary region was marginally below and the southern Alberta region significantly below average. In terms of our sample, of the 42 problem gamblers residing in Alberta (three problem gambler respondents were from out of province), 40% were from northern Alberta, 25% from Edmonton, 12% from Calgary and 14% from southern Alberta.

Representing the problem gambler sub-sample by region, as was done above, may introduce bias because there were not equal numbers of respondents in each region. Examining the data from another perspective (the % of respondents from each region that scored as problem gamblers), we see the same tendency toward high VLT revenues per machine associated with higher problem gambling prevalence rates, but the correlation is less pronounced. The percentage of all respondents in a region that qualified as problem gamblers was northern Alberta (25.4%), Edmonton (32.6%), Calgary (14.3%) and southern Alberta (12.5%).

While the southern Alberta region had the lowest percentage of problem gamblers, surprisingly, it was the leading region for moderate risk gamblers, as 50% of respondents scored in this category.

## Conclusions

Based on our analysis of regional average annual expenditures per VLT and regional problem gambling prevalence rates, we submit the following conclusions:

- There were significant regional variations in average annual expenditures per VLT, in that: northern Alberta far exceeded the provincial average; the greater Edmonton and Calgary regions approximated the provincial average; and Southern Alberta was well below the provincial average.
- The demographic indicators that differentiated regions in terms of annual average expenditures per VLT, showed higher expenditure communities to have (1) a higher percentage of males to females; (2) a lower percentage of adults in the 55 and over age group, (3) higher average annual incomes, and (4) lower unemployment rates.
- Higher average VLT revenues per VLT in a region corresponded with higher problem gambling prevalence rates.

## Implications

We cannot say for certain why average annual VLT expenditures were much higher in the northern region of the province; however, we speculate that the difference may be related to the following factors: the high revenue per VLT communities have an oil and natural gas based economy in common, which translates into a well paid, predominantly younger male workforce, living in towns where recreational and entertainment options are limited. A primary leisure outlet in these towns is the bars and lounges that feature VLT gambling. For lack of alternative diversions, patrons of these establishments play VLTs longer and more intensely than is the case in southern Alberta communities, thus contributing a greater share of the VLT profits. Another possible explanation for the heavy VLT play in northern Alberta is the general unavailability of other major gambling formats such as casinos and racetracks. Perhaps because there are few other exciting gambling alternatives, VLTs have become the game of choice in Alberta's northern region.

It is important to note that our findings regarding high VLT revenue producing communities differ considerably from what has been reported in Australian research on the subject. Unlike Australia, where evidence shows electronic gambling machines generate more revenues in disadvantaged communities, upper-end VLT revenue producing communities in Alberta had lower unemployment rates and higher average salaries than did communities that achieved much lower VLT profits. Cross-cultural comparisons relating to gambling machine density, machine revenue generation and community impacts should be a high research priority.

While preceding explanations may shed light on why VLT revenues per machine are higher in northern Alberta, the next step is to assess community impacts associated with VLT play. In other words, do high revenues per VLT in a community affect citizen's well-being, either positively or negatively? On the positive side, there may be more VLT-related jobs and money to boost the hospitality/tourism industry. On the downside, it is unknown whether heavy VLT play in northern Alberta towns coincides with negative indicators such as bankruptcy, crime, divorce, alcoholism and suicide rates.

According to AGLC 2000-01 statistics, the leading community for heavy VLT play was High Level with gross average annual revenues of $201,666 per VLT. At the low end of the scale, the southern Alberta community of Pincher Creek had average annual revenues of $61,087 per machine. In other words, 3.3 times more money was lost on VLTs that year in High Level, compared with Pincher Creek.

High Level and Pincher Creek are well matched; in that, High Level is a town of 3,444 inhabitants according to year 2001 federal census data and contained 20 VLTs in four establishments; similar in size, Pincher Creek, had 3,666 residents and 25 VLTs in 5 locations. In fiscal year 2000-01, $4.7 million in VLT net sales (losses) were extracted from High Level versus $1.8 million from Pincher creek. Per capita VLT losses in High Level were $1,377, in contrast to $490 in Pincher Creek. Of course, these per capita losses are significantly higher if those under 18 years of age, who are forbidden by law to play the machines, are excluded. VLT operators in High Level made $711,763 in commissions (approximately $180,000 per establishment), versus $269,500 in Pincher Creek ($53,900 per establishment).

A community such as High Level that is hard hit by VLTs is vulnerable in two ways; (1) it suffers the negative consequences known to be associated with excessive gambling (addiction, impoverishment and family breakdown), and (2) most of the VLT profits they do generate exit the community. Exacerbating the situation is the fact that the community is largely excluded from the VLT policy decision making process.

Future research in this area should consider; specifically, whether, and to what extent, the economic, psychological and spiritual health of communities is compromised by the presence of VLT gambling. Appropriate comparisons could be made between high, medium and low per capita VLT revenue generating communities, in addition to Alberta communities that have no VLTs; either because they were voted out (e.g. Rocky Mountain House and Sylvan Lake) or never introduced because there are no licensed premises in the town (e.g. Cardston).

## 8.8 Concluding Remarks

This report documents and analyzes the Alberta government's VLT program, including its introduction, growth and development; baseline information on adult Albertans' VLT gambling patterns and behaviors; the problem gambling prevalence rate among Alberta VLT players; and factors that distinguish between problem and non-problem VLT gamblers.

Key issues covered in the report include:

- In the haste to implement VLT gambling there was no public consultation and minimal effort exerted to discern the social and economic impacts of VLT gambling on the Alberta citizenry.
- Crises over the perceived negative impacts of VLT gambling triggered two provincial inquiries on government gambling policy and plebiscites in 37 Alberta communities on whether or not to remove the machines.
- Consideration of the factors (structural, situational, environmental, genetic, etc.) that are thought to induce impaired control VLT gambling.
- Evidence of a high problem gambling prevalence rate among Alberta VLT players.
- Evidence of significant regional and community differences in VLT revenue generation.

The future of VLT gambling in the province depends on two main factors: (a) whether individuals can learn to play VLTs wisely or, if not, be kept away from the machines, and (b) whether the government and VLT operators are prepared to sacrifice revenues for the sake of reducing problem gambling. If these issues can be satisfactorily addressed, the VLT program is likely to carry on in a modified fashion. If not, we are likely to see continuing high problem gambling rates among VLT players, which will raise questions about government victimizing vulnerable citizens and perhaps lead to another public backlash that will ultimately bring about termination of the VLT program in Alberta.

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# APPENDICES

## Appendix 1
## Alberta CPGI Study – VLT Players Questionnaire

## CPGI Telephone Questionnaire
## Alberta Gambling and Problem Gambling Questionnaire Items

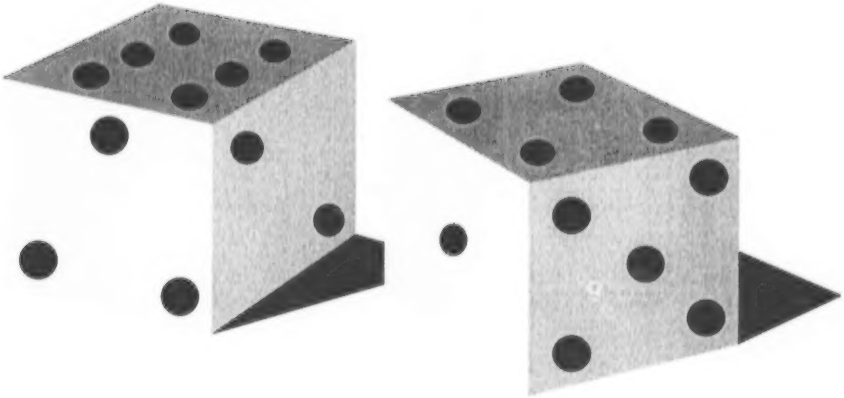
| DIMENSIONS | VARIABLES | INDICATORS | ITEMS AND QUESTION NUMBERS |
|---|---|---|---|
| **Gambling Involvement** | Type | Gambling activities | 1. In the past 12 months, have you bet or spent money on (list activities)? |
| | Frequency | Frequency of play | 2. In the past 12 months, how often did you bet or spend money on (list activities)? |
| | Duration | Time at play/type/session | 3. In the past 12 months, how many minutes/hours did you normally spend each time betting or spending money (list activities)? |
| | Expenditure | Money wagered monthly | 4. How much money, not including winnings, did you spend on (list activities) in a typical month? |
| | | Largest amount wagered | 5. In the past 12 months, what is the largest amount of money you ever spent on (list activities) in any one day? |
| | Co-participants | Gambling companions | When you spend money on (list activities), whom do you go with? |
| | Motivation | Reasons for gambling | 6. What are the main reasons why you participate in (list activities)? |
| **Problem Gambling Behavior** | Loss of control | Bet more than could afford | 8. In the past 12 months, how often have you bet more than you could really afford to lose? |
| | | Bet or spent more than wanted to | 21. In the past 12 months, have you bet or spent more money than you wanted to on gambling? |
| | Motivation | Increase wagers | 9. In the past 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement? |
| | Chasing | Returning to win back losses | 10. In the past 12 months, have you gone back another day to try to win back the money you lost? |
| | Borrowing | Borrow money or sold anything | 11. In the past 12 months, have you borrowed money or sold anything to get money to gamble? |
| | Lying | Lied to family members or others | 20. In the past 12 months, have you lied to family members or others to hide your gambling? |
| | | Hiding evidence | 18. In the past 12 months, have you hidden betting slips, lottery tickets, gambling money, IOUs or other signs of betting or gambling from your partner, children or other important people in your life? |
| | Illegal acts | Theft | 26. In the past 12 months, have you stolen anything or done anything else illegal such as write bad cheques so that you could have money to gamble? |
| | Problem recognition | Felt problem | 12. In the past 12 months, have you felt that you might have a problem with gambling? |
| | | Wanted to stop, didn't think could | 17. In the past 12 months, have you felt like you would like to stop betting money or gambling, but you didn't think you could? |
| | | Unable to quit | 22. In the past 12 months, have you tried to quit, or cut down on your gambling but were unable to do it? |
| | | Escape | 19. In the past 12 months, have you gambled as a way of escaping problems or to help you feel better when you were depressed? |
| **Adverse Consequences** | Personal Consequences | Negative health effects | 15. In the past 12 months, has gambling caused you any health problems, including stress or anxiety?<br>23. In the past 12 months, have you had difficulty sleeping because of gambling?<br>24. In the past 12 months, have you felt irritable or restless when you tried to cut down or stop gambling for a while? |

| DIMENSIONS | VARIABLES | INDICATORS | ITEMS AND QUESTION NUMBERS |
|---|---|---|---|
| | | Criticism | 13. In the past 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? |
| | | Feelings of guilt | 14. In the past 12 months, have you felt guilty about the way you gamble or what happens when you gamble? |
| | Social Consequences | Financial problems | 16. In the past 12 months, has your gambling caused any financial problems for you or your household? |
| | | Family problems | 25. In the past 12 months, has your gambling caused any problems between you and any of your family members or friends? |
| | | Lost relationship | 27. In the past 12 months, have you almost lost a relationship, a job, or an educational or career opportunity because of your gambling? |
| **Problem Gambling Correlates** | First experiences | Age first gambled | 28a. How old were you when you first gambled for money? |
| | | First gambling type | 28b. What type of gambling was that? |
| | Family problems | Family gambling problem | 33. Has anyone in your family ever had a gambling problem? |
| | | Family alcohol/ drug problem | 34. Has anyone in your family ever had an alcohol or drug problem? |
| | Co-morbidity | Alcohol/Drug use | 35. In the past 12 months, have you used alcohol or drugs while gambling? |
| | | Gambling under the influence | 36. In the past 12 months, have you gambled while drunk or high? |
| | | Admit Alcohol/ Drug problem | 37. In the past 12 months, have you felt you might have an alcohol or drug problem? |
| | Relieve pain | Self-medication (gambling, alcohol, or drug use | 38. In the past 12 months, if something painful happened in your life, did you have the urge to gamble? |
| | | | 39. In the past 12 months, if something painful happened in your life, did you have the urge to have a drink? |
| | | | 40. In the past 12 months, if something painful happened in your life, did you have the urge to use drugs or medication? |
| | Stress | Treated for stress | 41. In the past 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress? |
| | Depression | Feelings of depression | 42. During the past 12 months, was there ever a time when you felt sad, blue, or depressed for two weeks or more in a row? |
| | | Medication | 43. During this time, did you take medication or antidepressants? |
| | Suicide | Suicide ideation | 44. In the past 12 months, have you ever seriously thought about committing suicide? |
| | | Suicide attempts | 45a. In the past 12 months, have you ever attempted suicide? |
| | | | 45b. Where these suicidal thoughts or attempts related to your gambling? |

Note: In Table 5, the item numbers are not in ascending sequence, but rather, they correspond with the actual item numbers in the survey questionnaire.

# CANADIAN PROBLEM GAMBLING INDEX

(N=1804)



**Population Research Laboratory**
**University of Alberta**

**August 2001**

Hello, my name is ______________ and I'm calling (long distance) from the Population Research Laboratory at the University of Alberta. Have I dialed XXX-XXXX? Your phone number was selected at random by computer as belonging to a household in Alberta.

We are currently conducting a research survey on the gambling activities and attitudes of Albertans. The information gathered in this study will help researchers better understand gambling behaviour and develop programs and services for Albertans with gambling problems. We are interested in a wide representation of viewpoints and would like to speak with people who gamble as well as those who do not gamble.

To ensure that we speak with a good cross-section of people in the province, could you please tell me the number of men aged 18 and older who live in your household?

_______ # of men aged 18 and older

And the number of women aged 18 and older?

_______ # of women aged 18 and older

We don't always interview the person who answers the telephone. For this study I would like to interview the (a) (male/female) member of the household. Would that person be available to speak with me?

1 Yes-proceed
2 No-schedule callback for person (or code appropriately)

INTERVIEWER NOTE: REPEAT INTRODUCTION IF ANOTHER PERSON COMES TO PHONE.

Enter gender of respondent

1 Male
2 Female

I would like to interview you and I'm hoping that now is a good time for you. The interview will take about 15 minutes, depending on the questions that apply to you. Is now a convenient time for you?

1 Yes-proceed
2 No-schedule callback (or code appropriately)

Before I go on, I would like to assure you that your participation in this interview is completely voluntary. If there are any questions you don't wish to answer, please point these out to me and we'll go on to the next question. You, of course, have the right to end this phone call at any time. The information we are requesting in this interview is protected under the Alberta Freedom of Information and Protection of Privacy Act and will be used only for research purposes.

Nobody will be identified individually in any reports coming out of the survey. If you have any questions about this study, you can call Cathy Drixler, Project Coordinator at the Population Research Lab (at 780-492-4659, ext. 229). May we proceed?

1 Yes
2 No-Arrange callback or code appropriately

First, I would like to ask you some questions about gambling activities you may participate in. People spend money and gamble on many different things including buying lottery tickets, playing BINGO, or playing card games with their friends. I am going to read you a list of activities and I would like you to tell me which of these you have bet or spent money on in the past 12 months.

1. In the past 12 months, have you bet or spent money on….(READ. SELECT ALL THAT APPLY)

   Lottery tickets such as 649, Super 7, or POGO
   Daily lottery tickets like Pick 3
   Instant-win or scratch tickets (e.g., break-open, pull tabs, Nevada strips)
   Raffle tickets or fundraising tickets
   BINGO
   Card or board games with family or friends (for money)
   Video lottery terminals (VLTs) (i.e., in bar or restaurant lounge)
   Casino slot machines
   Arcade or video games for money
   Gambling on the Internet
   Sports Select (e.g., Pro Line, Over/Under, Point Spread)
   Sports pools (e.g., charity-sponsored or at work)
   Outcome of sporting events (other than sports pool or Sports Select)
   Sports with a bookie
   Horse races at the track or off-track
   Games at Alberta casinos other than coin slots or VLTs (e.g., poker, blackjack, roulette)
   Games at casinos outside Alberta (e.g., Las Vegas, Regina) other than coin slots or VLTs (e.g., poker, blackjack, roulette)
   Stocks, options, commodities markets but NOT mutual funds or RRSPs
   Games of skill for money like golf, pool, bowling, darts
   Card games in non-regulated settings other than with family/friends (e.g., card rooms)
   Other forms of gambling 1 (specify) ______________________
   Other forms of gambling 2 (specify) ______________________
   No response

IF RESPONDENT HAS NOT GAMBLED IN THE PAST 12 MONTHS, SKIP TO Q28A

For each activity that respondent has participated in during the past 12 months ask questions 2-7:

2. In the past 12 months, how often did you bet or spend money on ___________? Would you say…(READ)

   1 Daily
   2 2 to 6 times/week
   3 About once/week
   4 2-3 times/month
   5 About once/month
   6 Between 6-11 times/year
   7 Between 1-5 times/year
   8 Don't know
   0 No response

3. In the past 12 months, how many minutes or hours did you normally spend EACH TIME betting or spending money on ____________________?

_______ Number of minutes (EXACT MINUTES. NO ROUNDING)

481 More than 8 hours
998 Don't know
999 No response

4. In the past 12 months, how much money, not including winnings, did you spend on ________________ in a typical month?

_______ Number of dollars

99998 Don't know
99999 No response

NOTE: Spending means out of pocket and doesn't include money won and then spent

5. In the past 12 months, what is the largest amount of money you spent on __________ in any one day?

_______ Number of dollars

99998 Don't know
99999 No response

6. When you spend money on ___________, who do you participate with or go with? (READ TO PROMPT IF NECESSARY. IF MORE THAN ONE RESPONSE, SELECT '6' AND RECORD RESPONSES)

1 Alone
2 With spouse or partner
3 With other family members
4 With friends or co-workers
5 With some other individual or group (Specify)
6 More than one of selections above (Specify)
7 Don't know
0 No response

7. What are the main reasons why you participate in ___________? (DO NOT READ. IF MORE THAN ONE RESPONSE, SELECT '12' AND RECORD ALL RESPONSES)

1 In order to do things with your friends
2 For excitement or as a challenge
3 As a hobby
4 To win money
5 To support worthy causes
6 Out of curiosity

7 For entertainment or fun
8 To distract yourself from everyday problems
9 Because you're good at it
10 To be alone
11 Other (specify)
12 More than one reason (specify)
13 Don't know
0 No response

The next questions are part of a standard measurement scale that was recently developed in Canada for use in gambling surveys similar to this one. For each question I would like you to base your answer on the past 12 months. Some of these questions may not apply to you but please try to answer as accurately as possible. Remember that all your answers are strictly confidential. The categories to use for each question are never, sometimes, most of the time, or almost always.

8. Thinking about the past 12 months, have you bet more than you could really afford to lose? Would you say…(READ)

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

9. (Thinking about the past 12 months)…have you needed to gamble with larger amounts of money to get the same feeling of excitement? (Would you say…(READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

10. (Thinking about the past 12 months)…have you gone back another day to try to win back the money you lost? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

11. (Thinking about the past 12 months)…have you borrowed money or sold anything to get money to gamble? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

12. (Thinking about the past 12 months)…have you felt that you might have a problem with gambling? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

13. (Thinking about the past 12 months)…have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

14. (Thinking about the past 12 months)…have you felt guilty about the way you gamble or what happens when you gamble? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

15. (Thinking about the past 12 months)…has your gambling caused you any health problems, including stress or anxiety? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

16. (Thinking about the past 12 months)…has your gambling caused any financial problems for you or your household? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

17. (Thinking about the past 12 months)…have you felt like you would like to stop betting money or gambling but you didn't think that you could? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

18. (Thinking about the past 12 months)…have you hidden betting slips, lottery tickets, gambling money, IOUs, or other signs of betting or gambling from your partner, children, or other important people in your life? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

19. (Thinking about the past 12 months)…have you gambled as a way of escaping problems or to help you feel better when you were depressed? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

20. (Thinking about the past 12 months)…have you lied to family members or others to hide your gambling? (Would you say… (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always

5 Don't know
0 No response

21. (Thinking about the past 12 months)...have you bet or spent more money than you wanted to on gambling? (Would you say... (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

22. (Thinking about the past 12 months)...have you tried to quit or cut down on your gambling but were unable to do it? (Would you say... (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

23. (Thinking about the past 12 months)...have you had difficulty sleeping because of your gambling? (Would you say... (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

24. (Thinking about the past 12 months)...have you felt irritable or restless when you tried to cut down or stop gambling for a while? (Would you say... (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always
5 Don't know
0 No response

25. (Thinking about the past 12 months)...has your gambling caused any problems between you and any of your family members or friends? (Would you say... (READ))

1 Never
2 Sometimes
3 Most of the time
4 Almost always

| | |
|---|---|
| 5 | Don't know |
| 0 | No response |

26. (Thinking about the past 12 months)...have you stolen anything or done anything illegal such as write bad cheques so that you could have money to gamble? (Would you say... (READ))

| | |
|---|---|
| 1 | Never |
| 2 | Sometimes |
| 3 | Most of the time |
| 4 | Almost always |
| 5 | Don't know |
| 0 | No response |

27. (Thinking about the past 12 months)...have you almost lost a relationship, a job, or an educational or career opportunity because of your gambling? (Would you say... (READ))

| | |
|---|---|
| 1 | Never |
| 2 | Sometimes |
| 3 | Most of the time |
| 4 | Almost always |
| 5 | Don't know |
| 0 | No response |

The next questions explore some of your gambling experiences, beliefs, alcohol and drug use, and health-related issues. Once again, your answers will be kept strictly confidential.

28a. How old were you when you first gambled for money?

| | |
|---|---|
| ______ | Age |
| 775 | Never tried gambling (SKIP TO Q31) |
| 885 | Five years of age or younger (but no specific age given) |
| 998 | Don't know (SKIP TO Q31) |
| 999 | No response (SKIP TO Q31) |

28b. What type of gambling was that? (DO NOT READ. SELECT ONE RESPONSE ONLY. READ CATEGORIES IF PROMPT NEEDED).

Lottery tickets such as 649, Super 7, or POGO
Daily lottery tickets like Pick 3
Instant-win or scratch tickets (e.g., break-open, pull tabs, Nevada strips)
Raffle tickets or fundraising tickets
BINGO
Card or board games with family or friends (for money)
Video lottery terminals (VLTs) (i.e., in bar or restaurant lounge)
Casino slot machines
Arcade or video games for money
Gambling on the Internet

Sports Select (e.g., Pro Line, Over/Under, Point Spread)
Sports pools (e.g., charity-sponsored or at work)
Outcome of sporting events (other than sports pool or Sports Select)
Sports with a bookie
Horse races at the track or off-track
Games at Alberta casinos other than coin slots or VLTs (e.g., poker, blackjack, roulette)
Games at casinos outside Alberta (e.g., Las Vegas, Regina) other than coin slots or VLTs (e.g., poker, blackjack, roulette)
Stocks, options, commodities markets but not mutual funds or RRSPs
Games of skill for money like golf, pool, bowling, darts
Card games in non-regulated settings other than with family/friends (e.g., card rooms)
Other forms of gambling (specify) ______________________
No response

29. Do you remember a big win when you first started gambling?

1 Yes
2 No
3 Don't know
0 No response

30. Do you remember a big LOSS when you first started gambling?

1 Yes
2 No
3 Don't know
0 No response

Please tell me how much you agree or disagree with the following statements.

31. While gambling, after losing many times in a row, you are more likely to win. Would you say you…(READ)

1 Strongly agree
2 Agree
3 Disagree
4 Strongly disagree
5 Don't know
0 No response

32. While gambling, you could win more if you used a certain system or strategy. Would you say…(READ)

1 Strongly agree
2 Agree
3 Disagree
4 Strongly disagree

5 Don't know
0 No response

For the next series of questions, please answer yes or no.

33. Has anyone in your family EVER had a gambling problem?

1 Yes
2 No
3 Don't know
0 No response

34. Has anyone in your family EVER had an alcohol or drug problem?

1 Yes
2 No
3 Don't know
0 No response

IF RESPONSE IN Q28 WAS NEVER GAMBLED OR IF HASN'T GAMBLED IN PAST 12 MONTHS, SKIP TO Q37

35. In the past 12 months, have you used alcohol or drugs while gambling?

1 Yes
2 No
3 Don't know
0 No response

36. In the past 12 months, have you gambled while you were drunk or high?

1 Yes
2 No
3 Don't know
0 No response

37. In the past 12 months, have you felt you might have an alcohol or drug problem?

1 Yes
2 No
3 Don't know
0 No response

38. In the past 12 months, if something painful happened in your life, did you have the urge to gamble?

1 Yes (includes having the urge as well as doing it)
2 No

3 Don't know
0 No response

39. In the past 12 months, if something painful happened in your life, did you have the urge to have a drink?

1 Yes (includes having the urge as well as doing it)
2 No
3 Don't know
0 No response

40. In the past 12 months, if something painful happened in your life did you have the urge to use drugs or medication?

1 Yes (includes having the urge as well as doing it)
2 No
3 Don't know
0 No response

41. Still thinking about the past 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress?

1 Yes
2 No
3 Don't know
0 No response

42. In the past 12 months, was there ever a time when you felt sad, blue, or depressed for TWO WEEKS OR MORE in a row?

1 Yes
2 No (SKIP TO Q44)
3 Don't know (SKIP TO Q44)
0 No response (SKIP TO Q44)

43. During this time, did you take medication or antidepressants for your depression?

1 Yes
2 No
3 Don't know
0 No response

44. In the past 12 months, have you seriously thought about attempting suicide?

1 Yes
2 No (SKIP Q46)
3 Don't know (SKIP Q46)
0 No response (SKIP Q46)

45a. During this time, have you ever attempted suicide?

1 Yes

2 No (SKIP TO Q46)
3 Don't know (SKIP TO Q46)
0 No response (SKIP TO Q46)

45b. Were these suicidal thoughts or attempts related to your gambling?

1 Yes
2 No (SKIP Q46)
3 Don't know (SKIP Q46)
0 No response (SKIP Q46)

These next questions will give us a better understanding of the people who took part in this survey. Like all your other answers, this information will be kept strictly confidential.

46. In what year were you born?

________ year (e.g., 1936, 1961)

9999 No response

47. What is your current marital status? (READ)

1 Single, never married
2 Married
3 Common-law
4 Divorced or separated
5 Widowed
0 No response

48. What is the highest level of education that you have completed? (PROMPT WITH CATEGORIES)

1 No schooling
2 Some elementary school
3 Completed elementary school
4 Some high school/junior high
5 Completed high school
6 Some community college
7 Some technical school
8 Completed community college (e.g., certificate, diploma)
9 Completed technical school (e.g., certificate, diploma)
10 Some University
11 Completed Bachelor's Degree (Arts, Science, Engineering, etc.)
12 Completed Master's degree: MA, MSc, MLS, MSW, etc.
13 Completed Doctoral Degree: PhD, "doctorate"
14 Professional Degree (Law, Medicine, Dentistry)

15 Don't know
0 No response

49. Which ethnic group do you consider yourself to be a member of? If you have multiple ethnic origins, please select the one that you most identify with. Some examples are French, Aboriginal, Polish, Korean. (READ LIST IF NECESSARY. IF RESPONDENT MENTIONS MORE THAN ONE, HAVE THEM SELECT THE ONE THEY MOST IDENTIFY WITH. IF THEY INSIST ON MORE THAN ONE, SELECT ALL THAT THEY IDENTIFY)

INTERVIEWER: if respondent says "Canadian" or "American" probe with "Most Canadians and Americans have some other ethnic origin, even if it is from many generations ago. Can you tell me your ethnic origin?"

Aboriginal (First Nation, Inuit, Metis)
American
Austrian
Belgian
Black
Bulgarian
Canadian
Chilean
Chinese
Croatian
Czech
Danish
Dutch
East Indian
English
Filipino/a
Finnish
French
German
Greek
Hungarian
Indonesian
Iranian
Irish
Italian
Jamaican
Japanese
Korean
Lebanese
Norwegian
Pakistani
Peruvian
Polish
Romanian
Russian
Scottish
Serbian
Slovakian
Spanish
Swedish
Ukrainian
Vietnamese
Welsh
Yugoslavian
Other (specify)

IF ABORIGINAL CHOSEN IN Q49, ASK Q50. OTHERWISE, SKIP TO Q52.

50. Is your aboriginal ancestry either....(READ. SELECT ONE ONLY)

1 First Nations/North American Indian (ASK Q51)
2 Metis (SKIP Q52)
3 Inuit (SKIP Q52)
4 Other (specify)
5 Don't know
0 No response

51. Are you…(READ. SELECT ONE ONLY)

1 Treaty or status
2 Non-status
3 Don't know
0 No response

52. What is your present job status? Are you…(READ. SELECT ONE ONLY)

1 Employed full-time (30 or more hours/week) (ASK Q53)
2 Employed part-time (less than 30 hours/week) (ASK Q53)
3 Unemployed (out of work but looking for work) (ASK Q53)
4 Student employed part-time or full-time (ASK Q53)
5 Student not employed (GO TO Q54)
6 Retired (GO TO Q54)
7 Homemaker (GO TO Q54)
8 Other (specify) (GO TO Q54)
9 Don't know (GO TO Q54)
0 No response (GO TO Q54)

INTERVIEWER NOTE: If respondent gives more than one answer, select the one that appears first on the list.

53. What type of work do you currently do (or, what do you do when you are employed)?

______________________________________________

______________________________________________

INTERVIEWER NOTE: If necessary, ask "what is your job title?"

54. How many people under 18 years of age live with you?

_______ # under 18 years of age

98 Don't know
99 No response

55. What was your total household income, before taxes, last year? That would be the household income before taxes and from all sources for all persons in your household. Would you say…(READ)

1 Under $20,000
2 $20,000 – 30,000
3 $30,000 - 40,000
4 $40,000 - 50,000
5 $50,000 - 60,000
6 $60,000 - 70,000
7 $70,000 - 80,000
8 $80,000 - 90,000
9 $90,000 - 100,000
10 $100,000 - 120,000

| | |
|---|---|
| 11 | $120,000 - 150,000 |
| 12 | More than $150,000 |
| 13 | Don't know |
| 0 | No response |

INTERVIEWER NOTE: IF FARM INCOME OR SELF-EMPLOYED INCOME, RECORD AMOUNT AFTER DEDUCTING OPERATING EXPENSES

In the future we may conduct gambling research that is a follow-up to this study and to do this, we may wish to speak with some people again. Would it be all right if we contacted you again in the future for a follow-up interview? Once again, any information you provide would be kept strictly confidential.

| | |
|---|---|
| 1 | Yes |
| 2 | No (SKIP TO END) |
| 0 | Don't know (SKIP TO END) |

56. So that we know who to ask for if we do call, would you please tell me your name?

INTERVIEWER NOTE: ASK FOR FIRST AND LAST NAME AND BE SURE TO CONFIRM SPELLING. IF RESPONDENT WISHES TO ONLY PROVIDE ONE NAME, THAT'S OKAY.

______________________________________

57a. In case we have trouble reaching you at this number, is there another telephone number, like a work number, where we could try to reach you? We would only try this number if we weren't able to reach you at your home number and we wouldn't reveal to anyone who answered the reason why we were calling.

###-###-#### or 999-999-9999 if none/no response

57b. Is there an extension?

#### or 9999 if none/no response

58. Could you give the phone number of a friend or relative who would know how we could contact you, in case we have trouble reaching you? Again, we would only try this number if we weren't able to reach you at the other numbers and we wouldn't reveal to anyone why we were calling.

###-###-#### or 999-999-9999 if none/no response

59. What is your friend or relative's name?

____________________________________________________________

WE'VE REACHED THE END OF THE INTERVIEW. I WOULD LIKE TO THANK YOU VERY MUCH FOR YOUR PARTICIPATION.

# Appendix 2
# Alberta VLT Study Field Interview Questionnaire

# VIDEO LOTTERY TERMINAL GAMBLING IN ALBERTA

## Field Interview Questionnaire

## (Version 1.1)

| DOMAIN | VARIABLES | INDICATORS | ITEMS AND QUESTION NUMBERS |
|---|---|---|---|
| Gambling Involvement | Gambling Type | Favorite type | 1. What is (are) your favorite type(s) of gambling activity? |
| | VLT play | History | 2. When did you first start playing the VLTs? |
| | | Venue | 3. Where do you usually play the VLTs? |
| | | # of venues | x. Do you usually play the same VLT, play at the same establishment, or play at a number of different VLT sites? (specify why) |
| | | # of VLTs | x. How often do you play more than one VLT at a time? |
| | | Time of day | x. What time of day do you usually play the VLTs? (specify why). |
| | Frequency | Frequency of play | 4. How often do you play the VLTs? |
| | Duration | Time at play | 5. How long do you normally spend playing VLTs? |
| | | Longest session | x. What is the longest amount of time you've played VLTs at one sitting? |
| | Expenditure | Amount wagered | 6. Each time you play the VLTs, how much do you usually spend, not counting winnings? |
| | | Wins/losses | 7. What is the most you have ever won (lost) on VLTs in a single day? |
| | | ATM use | x. How often do you use on-site ATM machines to get money to play the VLTs? |
| | Co-participants | Gambling companions | 8. When you play the VLTs, whom do you normally go with? |
| | Appeal | Attractive features | 9. What is it about gambling on the VLTs that you find attractive? |
| | | Money/time | x. Do you play VLTs to win money or to build up credits to extend your playing time? |
| Problem Behaviour | Loss of control | Set $ budget | x. Do you set a dollar budget when you play the VLTs? |
| | | Exceed $ | x. How often have you spent more than your dollar budget on VLTs? |
| | | Set time budget | x. Do you set a specific amount of time for playing VLTs at a typical session? |
| | | Exceed time | x. Ho often have you spent more time than you allocated for a VLT sessioni? |
| | | Feelings of control | 10. When you play the VLTs, do you feel you are in control of your gambling behaviour? |
| | | Bet more than could afford | 11. How often have you bet more than you could really afford to lose on VLTs? |
| | | Bet or spent more than wanted to | 12. How often have you bet or spent more money than you wanted to on VLTs? |
| | Motivation | Increase wagers | 13. How often have you needed to gamble with larger amounts of money on VLTs to get the same feeling of excitement? |
| | Chasing | Returning to win back losses | 14. How often have you gone back another day to try to win back the money you lost on VLTs? |
| | Borrowing | Borrow money or sold anything | 15. How often have you borrowed money or sold anything to get money to gamble on VLTs? |
| | Lying | Lied to family members or others | 16. How often have you lied to family members or others to hide your VLT gambling? |
| Adverse Consequences | Personal Consequences | Criticism | 17. How often have people criticized your betting on VLTs or told you that you had a gambling problem, regardless of whether or not you thought it was true? |
| | | Feelings of guilt | 18. How often have you felt guilty about the way you gamble or what happens when you gamble on VLTs? |
| | | Negative health effects | 19. How often has VLT gambling caused you any health problems, including stress or anxiety? |

| DOMAIN | VARIABLES | INDICATORS | ITEMS AND QUESTION NUMBERS |
|---|---|---|---|
|  | Social Consequences | Financial problems | 20. How often has your VLT gambling caused any financial problems for you or your household? |
|  | Crisis | For gambler | 21. How often have you felt you were having a personal crisis while playing the VLTs? |
| Problem recognition | Problem recognition | Felt problem | 22. How often have you felt that you might have a problem with gambling on VLTs? |
|  |  | Wanted to stop, didn't think could | 23. How often have you felt like you would like to stop gambling on VLTs, but you didn't think you could? |
|  | Help seeking | Sought help | 24. Have you ever sought help for a gambling problem (identify source)? |
| Problem Gambling Correlates | Faulty cognition | System | x. Do you have a system for playing the VLTs? (describe) |
|  |  | Superstitions | x. Do you have any superstitions or rituals that bring you luck on the VLTs? |
|  |  | Predict win | x. Can you predict when a big payout is coming on a VLT? (specify how) |
|  |  | Payout | x. How much do you think VLTs payout to the players? (specify) |
|  |  | Due for a win after losses | 25. After losing on the VLTs many times in a row, you are more likely to win. |
|  |  | Having a winning system | 26. You could win more on the VLTs if you use a certain system or strategy. |
|  | Family problems | Family gambling problem | 27. Has anyone in your family EVER had a gambling problem? |
|  |  | Family alcohol or drug problem | 28. Has anyone in your family EVER had an alcohol or drug problem? |
|  | Concurrent substance use | Smoking | x. Do you smoke while playing the VLTs? |
|  |  | Gamble, drugs, alcohol | 29. Have you used alcohol or drugs while playing the VLTs? |
|  |  | Gamble when high | 30. Have you played the VLTs while drunk or high? |
|  | Problem recognition | Felt alcohol/drug problem | 31. Have you felt you might have an alcohol or drug problem? |
|  | Relieve pain | Self-medication (gambling) | 32. If something painful happened in your life, did you have the urge to play the VLTs? |
|  |  | Self-medication (alcohol) | 33. If something painful happened in your life, did you have the urge to have a drink? |
| Leisure and recreation | Leisure | Type | 34. What types of leisure and recreational activities do you participate in? |
|  |  | Frequency | 35. How often do you engage in these (activities)? |
|  |  | Expenditure | 36. How much do you normally spend on these (activities)? |
| Health status | Physical | Present status | 37. How would you describe your present health status (identify conditions)? |
|  | Stress | Treated for stress | 38. Have you been under a Dr's care because of physical or emotional problems brought on by stress? |
|  | Depression | Feelings of depression | 39. Was there ever a time when you felt depressed for two weeks or more in a row? |
| Demographics | Residence | Community | 40. What is your community of residence? |
|  | Sex | Male/female | 41. Note gender |
|  | Age | Age cohort | 42. How old are you? |
|  | Education | Highest level | 43. What is the highest level of education you completed? |
|  | Income | Annual household | 44. What is your annual household income? |
|  | Ethnicity | Ethnic group | 45. What ethnic group do you consider yourself to be a member of? |
| Final comments | Impact of VLTs | Personal effect of VLTs | x. What has VLT play done for your life? (specify) |
|  | Government policy | Comments | x. Do you have any comments for the provincial government regarding VLTs? (specify) |

# Appendix 3
# Field Interview Participant Observation Checklist

## Field Interview Participant Observation Checklist

1. **Count how many VLTs are in the establishment. Describe where they are located.**

2. **Count the number of players at the VLTs when you enter and when you leave. Estimate the total number of individual VLT players who came/left while you were there. Note whether these VLT players are (a) men/women, (b) younger/older looking (c) visible minorities.**

3. **Estimate the total number of patrons in the bar/lounge when you entered and when you left.**

4. **Note whether AADAC problem gambling posters/pamphlets, Helpline number stickers, or any other problem gambling information is in evidence.**